

REFLECTION

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(April 2011- March 2012)



Agricultural Training Centre
&
State Agricultural Management & Extension Training Institute
(SAMETI)

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Foreword

Sri Ramakrishna and Swami Vivekananda showed the people the way towards real development in us, which includes both material and spiritual aspects of our life. There is no religion for the empty stomach - said Sri Ramkrishna and Swami Vivekananda took it upon himself this lesson and spoke more about Economic development than Spiritual one. That is why the Ramakrishna Mission plunges headlong to in the economic betterment of the people first. As a consequence, we, at Narendrapur undertake various rural development programmes and the Agricultural Training Centre (ATC) is one of such ventures. In the agro-based society the task of the Agricultural Training Centre appears to be more vital, challenging and inviting as it deals with the farming community, the rural mass- the major sector of the Indian economy. The State Agricultural Management and Extension Training Institute (SAMETI) also has strengthened the ATC activity to broader and deeper dimensions. Along with the new-technology, dissemination process directly helps the farmers towards higher production, with the help of better extension and management system by enhancing skill and knowledge of the extension functionaries. There are small and medium duration training courses and also the long term courses as well for knowledge development. The process of transferring skill and knowledge to different stakeholders in agriculture and allied sectors becomes effective with the need-based demonstration in agriculture, animal husbandry, medicinal plants etc. A good network with the rural Bengal, regular visit to the farmers' field and interactions at advisory level make the learning process more effective and innovative. Our experience of such different projects and studies, directly targeting to uplift the rural livelihood is encouraging. The Centre so far has provided noticeable services for the development of the agriculture in the state and I think it will do so in much more organized way in the years that follow.

On the eve of the 150th Birth Anniversary of Swami Vivekananda, I pray to Sri Sri Ramakrishna, Sri Sri Ma Saradadevi and Swamiji to inspire us to work hard selflessly for the development of agricultural and rural community in achieving the dream of Swami Vivekananda.

Swami Suparnananda
Secretary

Preamble

This is a special year for us. It is the end of the 175th Birth anniversary of Sri Sri Thakur Ramakrishna and the beginning of the 150th Birth Anniversary of Swami Vivekananda. This is the time to get special inspiration to work more for the cause of the development of the general mass. More than 100 years ago the 'Cyclonic Monk' inspired the youths of India to leave all comforts for the sake of the uplift of the downtrodden. He uttered that until a dog of the street remained hungry, his effort would continue.

Since the Agricultural Training Centre (ATC) has been nominated with the higher responsibility of State Agricultural Management and Extension Training Institute (SAMETI), the institute is empowered to serve to a greater degree to the agricultural and rural community to a great extent. It is the unique institute where the information and views from three major clients of development, the farming community, the extension functionaries and the policy makers, are coming directly on regular basis. This opportunity gives the institute the opportunity to conceive, analyse and formulate the bridge between problems with prospects, lapses with effective steps and gaps with strategies. In the last financial year the institute has performed different kinds of activities of extension, management, study, publication etc. directly related to the development of agriculture and allied sectors for the state and also for the country.

Coordination and collaboration is the great strength in the attitude of the institute. The task, whatever may be the magnitude, performed by the institute would never be possible with the supports of the Department of the Government of West Bengal of Agriculture, Animal Resource Development, Horticulture, Fishery, Marketing, Panchayet and Rural Development along with the crucial support of Department of Agriculture and Cooperation, Govt. of India. The contributions of the National Institute of Agricultural Extension Management, Hyderabad, different Universities of Agriculture, Animal Husbandry- Fishery are definitely worthy to mention. Different Private sectors, village level development organizations also supported us to achieve our objectives. Our strength is also sharing of experiences and resources within different units of the Ashrama, like, the Lokasiksha Parishad, the Integrated Rural Development and Management Faculty Centre of the Vivekananda University, the Medicinal Plant and Ayurvedic Unit etc. with whom we always exert our efforts of agricultural and rural development more meaningfully. I extend my gratitude to all of them.

With the inspiration of Swami Vivekananda and with the blessings of Sri Sri Ramakrishna and Holy mother Sarada Devi, we hope to extend our services towards fulfilling Swamiji's dream.

Manas Ghosh
Principal & Director

Introduction

‘Let the New India comes out of the Huts of the Peasants, from the tip of the plough ...’ was uttered by Swami Vivekananda more than 100 years ago. To fulfill the mission, envisaged by Swamiji, more than 170 branch centers are working in India and abroad. Ramakrishna Mission Ashrama, Narendrapur is one of the prominent branch centers, under the Head Quarter Belur Math, well-known for its dedicated services for its excellence in education and also for rural and agricultural development activities in rural Bengal. During mid 1950s, the area of the present Ashrama, was named ‘Narendrapur’ according to the name of Swamiji ‘Naren’. The city Calcutta was far away from the place and the monks and dedicated workers of the Ashrama started their works for agricultural development in the surrounding villages. Now hardly any village is found around Narendrapur and its main thrust of agriculture and rural development has now been spread in large number of villages, spread all over West Bengal.

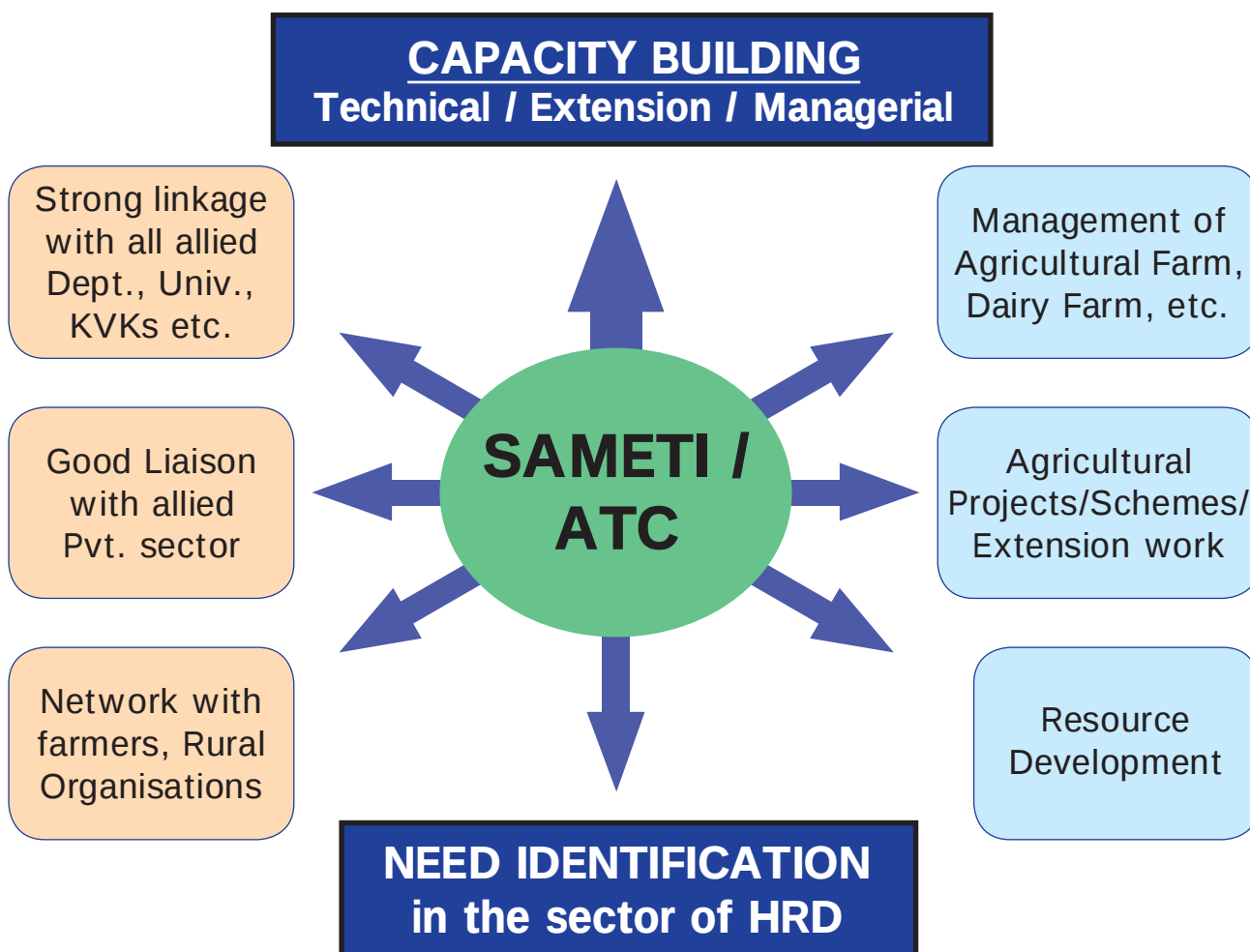
A village fair, centering live demonstration on different agricultural technologies, organized by the Ashrama every year, was the cause of attraction to the State Agricultural authorities. As a consequence of the success of that type of agricultural activities and understanding the capabilities of the Ashrama of motivating agricultural communities, the then Department of Agriculture and Community Development offered one training Centre to the Ramakrishna Mission Ashrama, Narendrapur in the year 1965 for the training of the ‘Gram Sevaks’, the extension workers at Panchayat and village level for agriculture and rural development.

Influenced by dedicated and quality service by the GSTC of the Ashrama and seeing the potentiality of that centre, the Government extended all sorts of facilities and also upgraded the centre time to time as of the other centers (GSTC) of Government. In the era of intensive agricultural programme, that Gram Sevak Training Centre, with specific agricultural development emphasis, was transformed to the Agricultural Training Centre (ATC) during late 1980s. Along with the Training of the Krishi Prayukti Sahayak (KPS) for their long duration Pre and In-service training, the centre was later empowered to for training of the village youths on ‘Farm Machineries and Implements’. With the demand of the situation the centre later on supported the farmers directly by pertaining different training for better implementation of advanced agricultural technologies. As part of the service of the Ramakrishna Mission, the centre started implementation of different agricultural extension services and implementation of different rural development programmes.

During middle of 2005, the Centrally Sponsored Scheme, Support to State Extension Programme for Extension Reforms (ATMA Scheme) was initiated in the West Bengal, which is considered as an attempt to paradigm shift in Agricultural Extension. During late 1970s the intension was to emphasize separately to specific areas like agriculture, animal husbandry, fishery etc. to gain a self sufficiency in food security aspects. But in recent time, it has been convincingly understood that the integration of different enterprises, convergence, coordination etc. are the main components of sustainable agricultural development as well as sustainable farm income. On the other hand, instead of direct contact extension methodology; the opportunity of group extension, mass extension, and distance extension is brought to the forefront through different innovative extension methodologies and use of ICT. The extension-workload to satisfy the target of quantity, quality, diversity of produces and desirable income at farm-family level is enormous and participation of private agencies along with the public extension has been recognized and emphasized for quality and timely delivery. Along with all those important policy

adoption, the Government-sponsored ATC of the Ashrama was empowered to act as the State Agricultural Management and Extension Training Institute (SAMETI) to exert important role on Human Resource Development in all sectors of Agriculture in the context of the desired situation.

The Institute has kept its pace with the change and evolution of Indian Agriculture and at present it is providing crucial supports to all levels viz. national, state, district and rural agricultural clients. In one side it is practicing the advanced and innovative farm technologies and gaining experience about their management through implementation in its agricultural farms, dairy-poultry farms, poly houses etc., on the other hand it is regularly interacting with farmers while delivering the technologies and implementing agricultural – rural development programmes. The faculties are in interactions with the extension functionaries of the state and receiving their regular views to set the need of HRD of the state. They are also receiving inputs through different courses in national level institutes to address the needs of the state. Theses opportunity of multifarious receiving, analyses and delivery makes the institute unique to bridge the reality of rural India with the desired intension of the policy makers of Indian Agricultural Development.



1

Programme Profile

The State Agricultural Management and Extension Training Institute (SAMETI) / Agricultural Training Centre, as a part of its core activities, is offering various types of human resource development activities through different level of training courses, seminar, workshop in close co-ordination with the departments of state government and others. The total programme organized in this year can be looked from various angles.

The activities are majorly categorized as –

- A. In campus Programmes,**
- B. Off campus programmes and**
- C. Other Programmes.**

A. IN CAMPUS PROGRAMMES

The In campus Programmes includes:

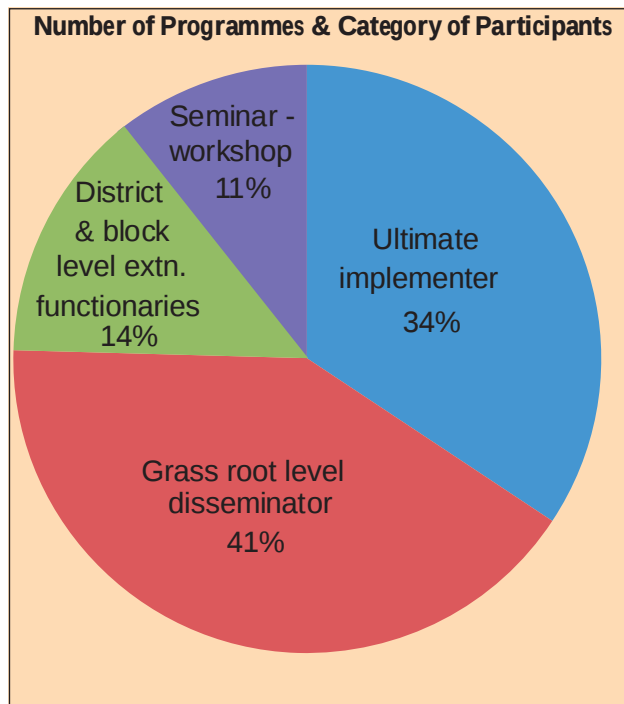
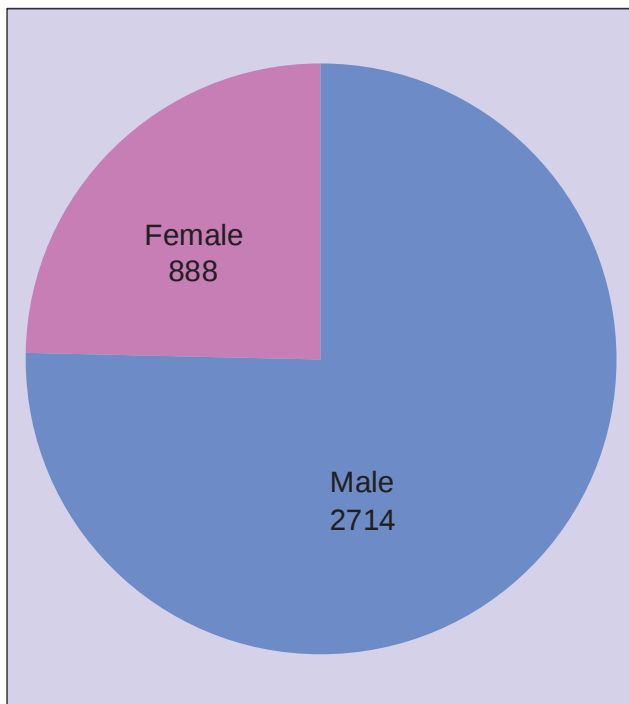
- I. Training Programme for ultimate implementer.
- II. Training Programme for grass root level disseminator.
- III. Training Programme for district and/or block level extension functionaries.
- IV. Seminar - workshop.

Overview of all the In Campus Programme:

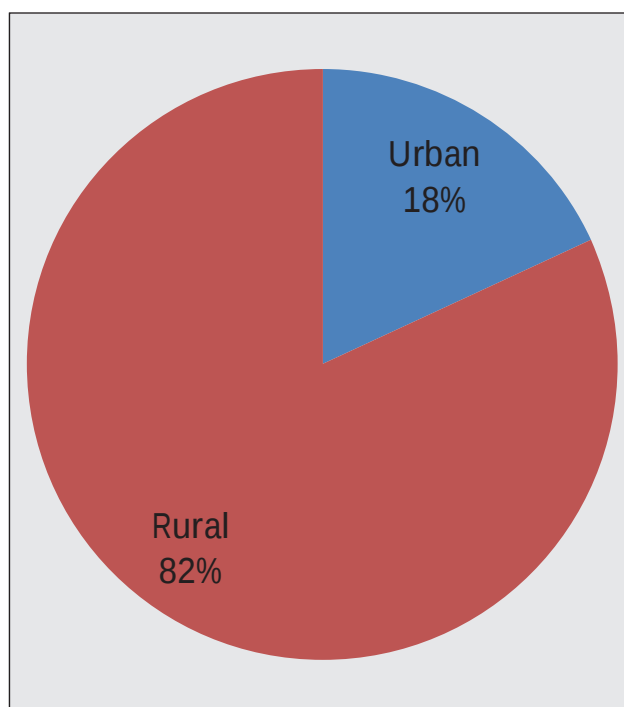
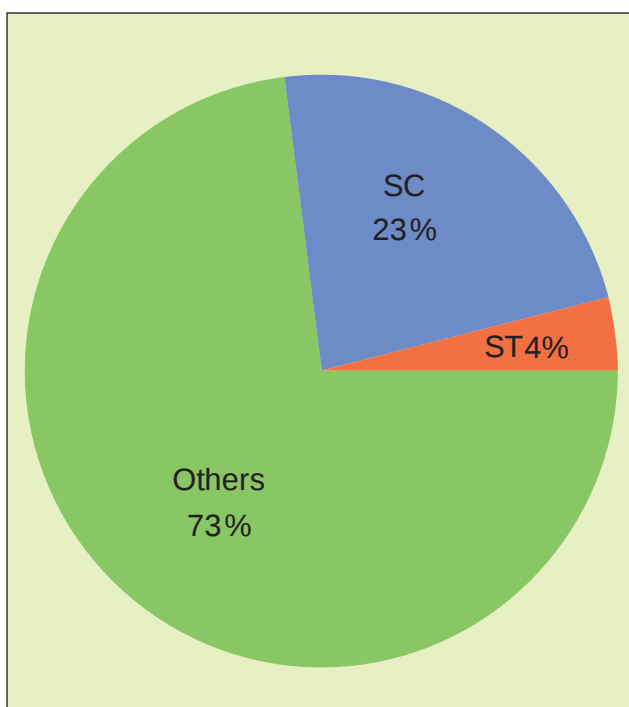
Sl. No.	Programmes for different level	No. of programme	No. of participants
1	Training Programme for ultimate implementer	35	1098
2	Training Programme for grass root level disseminator	42	1298
3	Training Programme for district and /or block level extension functionaries	14	457
4	Seminar - workshop.	11	749
	Total	102	3602

“The Man who works for others, without any selfish motive,
really does good to himself”

– Sri Ramakrishna



Total participants in various training programmes in 2011-12



“The brain and muscles must develop simultaneously.
Iron nerves with an intelligent brain – and the whole world is at your feet”
– Swami Vivekananda

I. TRAINING PROGRAMME FOR ULTIMATE IMPLEMENTER

The training programme for the ultimate implementer includes home gardening for women farmers, farmers' skill development training for different category of farmers (SC, ST, general, women and men), Animal husbandry for entrepreneurship development, skill development in cultivation of millets etc. Totally 35 such training courses have been conducted and 1098 farmers participated.

Sl. No.	Title of the course	Target group	Durations (day)	No. of course	Total participants
1	One day women skill development	Women Farmer	1	3	90
2	Animal husbandry for entrepreneurship dev.	Rural Youths	40	1	19
3	Farmers' Skill Dev. Training (male & female)	Rural farmers, youths etc.	5	28	839
4	Skill Development for millet cultivation	Farmers of Darjeeling Dist.	5	3	150
Total				35	1098

1.1 One-Day women skill development

For empowerment and skill development of women in agricultural sector, one day training under RKVY were arranged on the, subjects like home gardening, integrated nutrient management with special emphasis on Vermicomposting, scientific nursery management etc. Subjects are decided on the need of the women group.



Target group	Duration	No. of course	No. of total participants		
			Male	Female	Total
Women farmer	One day	3		90	90

“One should desire of God desirelessness. Desire is the obstacle to liberation”

– Sarada Devi

1.2 Animal husbandry for entrepreneurship development



A 40-day course on 'Animal husbandry for entrepreneurship development' for rural youths was organized. Different aspects of cattle and poultry rearing, feed, fodder, disease and their treatments, breed up gradation was in practiced form. The management aspects of the dairy and poultry farm, starting of entrepreneurship etc. were also the integrated part of the course. Nineteen village youths from the districts of Purba Medinipur, South 24 Parganas, North 24 Parganas, Burdwan and Murshidabad went through the course.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Rural Youths	40	1	19	-	19

1.3 Farmers' Skill Dev. Training (Male & Female)

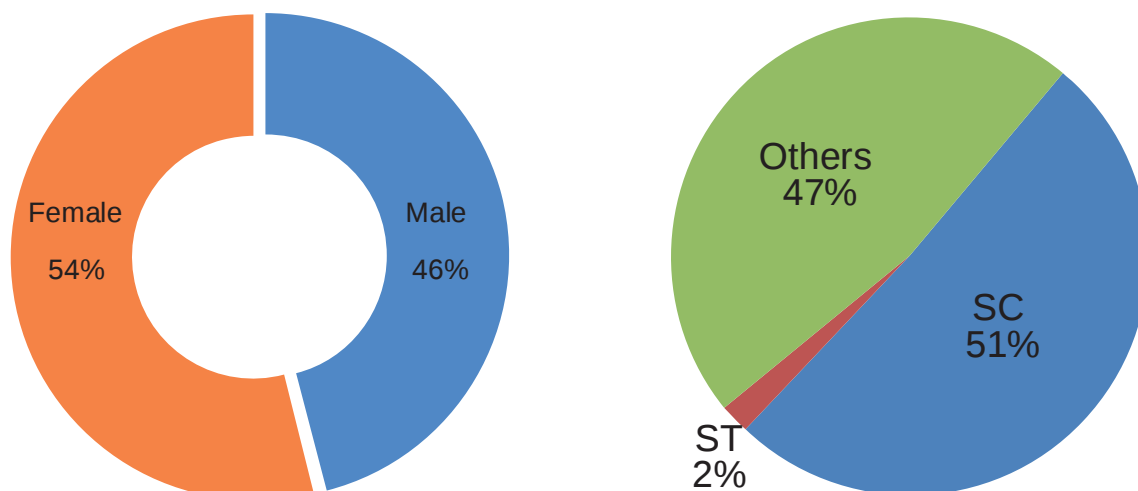
Different updated farm technologies like cultivation practices of pulses and oilseeds, SRI and drumseeder technologies of rice culture, vermicomposting, upgrading of fruit trees through grafting, non-chemical pest management concept, efficient water utilization in plants, mushroom cultivation etc. are being transferred directly to the farmers for speedy agricultural growth as well as targeting better livelihood of the farm families. The step has been taken by the Govt. of West Bengal, Agricultural Dept. to orient the farmers of all sectors through a formal 5-day course. In this 5-day course, different modules are formed for male and female farmers and also for different sectors (SC/ST etc.) on the basis of the need. The course includes concept building and practical/ demonstration and exposure visits.



Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Rural farmers, farm women (SC, ST, General)	5	28	390	449	839

"All the wealth of the world cannot help one little Indian village
if the people are not taught to help themselves"

– Swami Vivekananda



Category of farmers

Out of these twenty eight courses thirteen programmes are for male farmers and rest fifteen are for women. Farmers are mainly from South 24 Parganas, North 24 Parganas, Paschim Medinipur & Pruba Medinipur.

1.4 Skill Development for millet cultivation

The millet being the rain-fed food grain crop in little rain fall, particularly of arid and semi-arid zones, plays very important role in food security. This contributes about 8 percent of the total cereal production. On the basis of importance of the millets to support agricultural production, growth, nutritional security of the mass, emphasis is being given on better production, productivity, marketability etc. of the millets. For promotion of the millet, a special programme under the Rastriya Krishi Vikash Yojana has been taken by the Dept. of Agriculture and Cooperation, Govt. of India through the 'Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP).' In West Bengal the finger millet is found to play an important role on the Nutritional security of the tribal people of the hills of Darjeeling districts. ATC/ SAMETI, Narendrapur has been given responsibility for the human resource development for finger millet promotion in the Darjeeling district. A 5-day farmers training module was formed through a preparatory workshop, details of which is given in article 4.3 of this chapter. Three farmers training courses were organized during the reporting period.



“Agriculture is the noblest of all alchemy; for it turns earth, and even manure, into gold, conferring upon its cultivator the additional reward of health”

– Paul Chatfield



The 5-day training programmes of farmers of Darjeeling district's growing finger millet, was organised on cultivation and post harvest practices at Disha, Kalimpong in collaboration with the Deputy Director of Agriculture (Administration), Darjeeling district during February - March, 2012 under INSIMP. Topics like: Special features of finger millet cultivation in connection with agro-climatic conditions, Importance of finger millets, food value, keeping quality etc., Variety, seed preservation etc. and other seed related issues, Cultivation practices including intercropping; Nutrient management with emphasis on organic cultivation, Plant protection,

Post harvest activities, Composting methods etc. were discussed. Experts from the KVKs, RRS, Agricultural Directorates and progressive farmers took different sessions through lecture, interaction, practical, group discussion and field -exposure methods. One hundred fifty farmers from the block of Rangli-Rangliot, Kalimpong-I, Kalimpong-II and Gorubathan went through the training programme. Experts from the University, Zonal Agricultural Research Centre, Krishi Vigyan Kendra, Directorate of Agriculture along with expert from SAMETI conducted different sessions.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Farmers of Darjeeling Dist	5	3	97	53	150

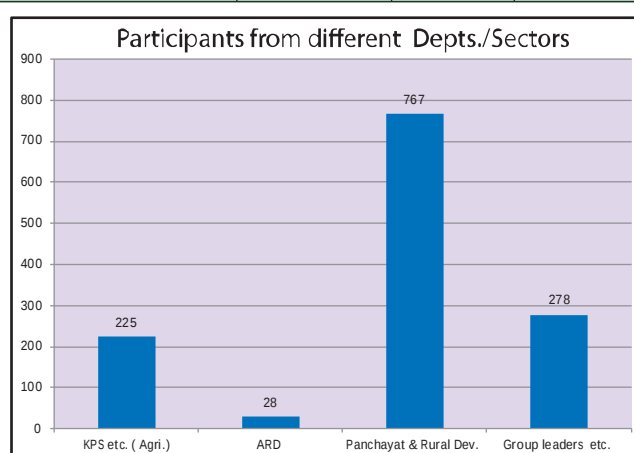
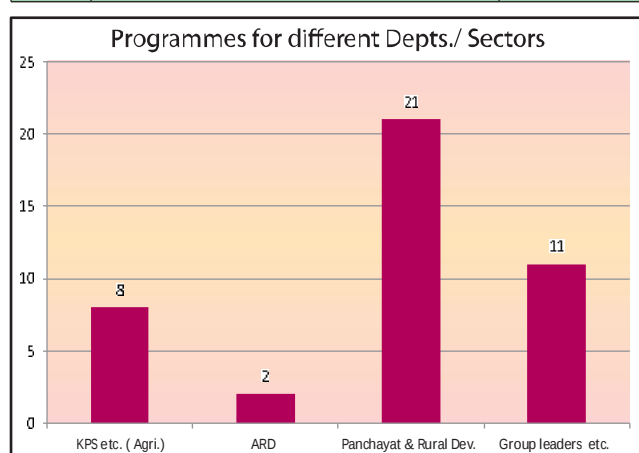
II. TRAINING PROGRAMME FOR GRASS ROOT LEVEL DISSEMINATOR

Under this second category, the training programmes are organized for the grass root level extension disseminator. Mainly the grass root level extension workers i.e. the extension worker of Agriculture sector (KPS), Animal Husbandry (Pranibandhu), Panchayat & Rural Development (Jeebika Sevak), IFFCO (Kishan Mitra) are trained in these programmes. The major courses are - AC/ ABC Refreshers Course, Agricultural information marketing network / market led extension, Artificial Insemination & Veterinary First Aid, Vermicomposting, Animal Husbandry Programme of Pranibandhu, Mushroom cultivation, Krishak Mitra –Orientation Programme, Orientation of 'Panchayat level development activities'- for Men & Women, Bio-intensive farming, Hybrid Maize seed production, Farm Mechanisation, Skill up gradation: Agricultural Implements etc. The grass root level extension workers are mainly, AC – ABC agri-preneurs, KPS, SHG leaders, Jeebika Sevaks, Pranibandhu, Krishak Mitras, Milk Federation co-operative members etc. Totally 42 such training courses in this category have been conducted and 1298 grass root level extension workers have participated.

“Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land”

– 1st Earl of Chatham, William Pitt

Sl. No.	Title of the course	Target group	Duration (day)	No. of course	No. of trainees
1.	AC/ ABC Refreshers Course	AC / ABC candidates	3	1	23
2.	Agricultural information marketing network / market led extension	Progressive farmers, SHG leaders, extension workers	3	2	50
3.	Artificial Insemination & Veterinary First Aid	Milk Federation co-operative members	30	1	23
4.	Vermicomposting and entrepreneurship development	Rural youth / SHG members, group leaders	2	3	82
5.	Refresher course on Artificial Insemination	Prani Bandhu (Animal husbandry extension worker)	45	1	5
6.	Mushroom cultivation and entrepreneurship development	SHG members	2	2	41
7.	Institution and Programme Management	Executives of different NGOs of Bangladesh	1	1	30
8.	Krishak Mitra – Orientation Programme	Krishak Mitra of IFFCO	3	2	52
9.	Orientation on 'Panchayat level development activities' (Men & Women)	Jeebika Sevaks (P & RD)	5	21	767
10.	Bio-intensive farming	KPS, NGO, executives	3	1	29
11.	Hybrid Maize seed production	KPS , NGO Extension Workers	1	2	96
12.	Farm Mechanisation	KPS etc.	5	5	100
Total				42	1298



“The best way to find yourself is to lose yourself in the service of others”

– Mahatma Gandhi

2.1 AC- ABC Refreshers Course



Establishment of Agri-clinic and Agri-business centre through the unemployed technical graduate is one of the thrust areas to boost the extension process as well as to create a link between the field produce and the market. Govt. of India is promoting these aspects through the AC-ABC scheme through NABARD. In spite of good intension of the Govt. the matter is not satisfactorily progressing. With the objective of bridging the gap, a 3-day Refreshers training for 'Establishment of Agriclinc-Agribusiness Centre' was conducted for the trained graduate during 8-10 November, 2011. The aspects like-business networking of Agri-preneurs, Business project preparation and financial analysis etc.

are thoroughly discussed and practiced. Participants from West Bengal and North-East states exchange their successes and clues for promotion of their business. Dr. U. Rao from MANAGE, Hyderabad along with the faculties of SAMETI conducted the course.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
AC-ABC candidates	3	1	23	--	23

2.2 Agricultural information marketing network/ Market led extension

One of the burning problems of most of the Indian farmers is the matter of market and remunerative price of their produces. The same produce which is glutting with very low price in one place, in another place it is found to be scarce with high price. This is a very common phenomenon in Indian agricultural market. To bridge the gap and to provide the farmers profitable price, many steps are being taken. One of the important steps is to disseminate market information among the farmers. Last year SAMETI conducted a master trainers training on this issue in collaboration with Directorate of Marketing and Inspection, GOI. As a follow up, field level programme for the SHG leaders have been organised for promotion of market information and market-led extension during the reporting period.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Progressive farmers, SHG leaders, extension workers	3	2	48	2	50

2.3 Artificial Insemination & Veterinary First Aid

The Milk Federation co-operative members related to Animal Husbandry with the aim of increasing production and economic productivity is being trained on different aspects of animal husbandry

"As long as I live, so long do I learn"

– Sri Ramakrishna

including the productivity and production of milk. Breed up gradation of cattle and poultry, procedures and management of rearing, health aspects, feed and fodder etc are being discussed in this 30-days course. The module contains practice along with the discussion sessions in poultry and dairy farm. Twenty three participants from four districts of West Bengal (West Medinipur, Nadia, Birbhum & from Burdwan) attended the course.



Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Milk Federation co-operative members	30	1	23		23

2.4 Vermicomposting and entrepreneurship development

Vermicomposting is one of the important technologies in the current situation, which has high need for sustainability for agriculture and totally based on local resources. On the basis of demand, specially from rural youths of different districts of the state, three 2-day training programme were conducted on vermicomposting. The rural youths were mainly demonstrated and practiced different steps of vermicomposting along with different aspects of entrepreneurship development. A total of eighty two farmers participated in those three training programmes.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Rural youth / SHG members, group leaders, village master trainers	2	3	67	15	82

2.5 Programme of Prani Bandhu

The 'Prani Bandhu' is the extension functionary on animal resource development at the Gram Panchayat level for better technology dissemination, mainly the artificial insemination for cattle development. For orientation and a thorough practice in dairy management aspects the newly recruited members under the Paschim Banga Go Sampad Unnayan Sanstha, a 45-day training was organized. Along with the theoretical sessions, practical and practices are given major importance dealing with cattle breeding, feeding, health care, production, quality control and



"I slept and dreamt that life was joy. I awoke and saw that life was service.
I acted and behold, service was joy"

– Rabindranath Tagore

fodder cultivation etc. The Artificial Insemination as a major tool for cattle breed up gradation is one of the most important areas. Five nominated candidates by the Deputy Director of ARD, South 24 Parganas have gone through the course during 2nd January - 15th February, 2012.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Prani Bandhu	45	1	5	-	5

2.6 Mushroom cultivation and entrepreneurship development



Food security doesn't only mean the amount of food meeting the appetite. This also includes the nutrition component and so the 'Nutrition Security' is also equally important with food security. In this relation, mushroom is very important not only in the hotels/restaurant but also in the poor men family. Mushroom is a food which can provide huge amount of protein and some essential amino acids produced from the raw material available in the rural area in profuse. Basically the paddy straw is used as the medium of growth. The institute is observing large demand for acquiring the skill of mushroom production by the women group, unemployed rural and urban youth and some

commercial agricultural farms. During 24-25 October, 2011 and 26-27 December, 2011 two training programmes on mushroom cultivation and processing was organized for 41 participants (including 19 female candidates) from the district of Purba Medinipur, South 24 Pargannas, Hooghly and Howrah. The importance of mushroom as food, base material for mushroom cultivation, procedure of the cultivation, processing of the product etc. were discussed and taught with hand on practical. Different aspects of entrepreneurship development were also discussed.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
SHG members	2	2	22	19	41

2.7 Institution and Programme Management

A 30-members team consisting of executives of different NGOs and agricultural officers from Bangladesh was on a visit to ATC/ SAMETI, Narendrapur on 24th. January, 2012. They went through a session on 'Organisation management' during their visit to India.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Executives of different NGOs of Bangladesh	1	1	18	12	30

"Let New India a rise-out of the peasants' cottage, grasping the plough;
out of the huts of the fisherman, the cobbler, and the sweeper"

– Swami Vivekananda

2.8 Krishak Mitra –Orientation Programme

Renovation of Extension, particularly in agricultural sector is found to be one of the most critical factors for increasing production, productivity and farmers' family income in recent days. Different agencies, organizations are trying their own ways on the basis of need, feasibilities, philosophy etc. The Indian Farmers Fertiliser Corporation is trying in one new method and SAMETI is collaborating to implement the method through their human resource development support. In every selected village one genuinely interested person, who has the basic knowledge in agriculture and has the capacity of good communication is selected for this 'Krishak Mitra programme'. These

persons were initially trained by SAMETI for one week on different aspects of agriculture (including animal husbandry, horticulture, fisheries etc.). On the basis of the need assessed and suitability, a 4-day



and a 3-day capacity building programmes for those 'Krishak Mitra' was conducted during 27-30 June, 2011 and 8-10 March, 2012. In these training 52 'Krishak Mitras' from the district of Nadia, Bankura, Hooghly, Howrah, Burdwan, Malda, North 24 Parganas and Purba Medinipur attended. The topics like 'Modern package of practices of cultivation of HYV rice', 'Efficient use of fertilizer in Kharif rice', 'SRI method of rice cultivation', 'Modern package of practices of rainy season fruit and vegetable cultivation', 'Care of animals and vaccination during rainy season' 'Renovation of pond and scientific pisciculture' etc. were discussed and practiced.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Krishak Mitra of IFFCO	3	2	52	-	52

2.9 Orientation of 'Panchayat level development activities' ('Jeebika Sevak' Men & Women)

The BRGF (Backward Regions Grant Fund) programme is being conducted under the Dept. of Panchayat and Rural Development to redress the regional imbalances in development in West Bengal. The 'Jeebika Sevak', the Panchayat level extension workers for implementation of different rural development schemes, have been engaged in this BRGF programme. A 5-day course module has been framed for orientation of the 'Jeebika Sevaks' about different rural development schemes like MGNREGA,

"Be the change that you wish to see in the world"

– Mahatma Gandhi



SGSRY, IGAY etc., implementation procedure of these schemes, use of the agricultural technologies, basic concept about the three tier Panchayati Raj Institute System, responsibilities of office bearers at different levels of PRI etc. During 2011-12 twenty one training programmes have been conducted for Jeebika Sevaks and 767 participants from ten districts of West Bengal were trained.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
Jeebika Sevaks – Men (P & RD)	5	17	653	-	653
Jeebika Sevaks – Women (P & RD)	5	4		114	114
Total		21	653	114	767

2.10 Bio-intensive farming

In production sector of agriculture, sustainability is the word of the time. The most important consideration in sustainability is the use of natural resources judiciously. On the other hand consciousness about quality of produces within the consumers' groups is increasing day by day. Considering all these factors, farm production avoiding chemicals as far as possible is gaining importance. Technology of bio-intensive farming is not readily available among the farmers. Taking all these views in consideration, a training programme on 'Bio-intensive farming' has been organized for the grass root level extension functionaries of agriculture (KPS, NGO agricultural extension workers etc.). In the 3 days programme, status of organic farming, process of organic farming, use of botanical pesticides and other bio-pesticides along with bio-based fertilizers, vermi-compost preparation and certification of organic farming were discussed. Twenty nine trainees from the district of South 24 Parganas, North 24 Parganas and Purba Medinipur attended the training course during 09-11 August, 2011.



Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
KPS, NGO executives etc.	3	1	29	-	29

"I tell you one thing - if you want peace of mind, don't fault with others"

– Sarada Devi

2.11 Hybrid Maize seed production

Food Security is one of the critical issues of agriculture in the context of burgeoning population of the country. It is now well understood that use of hybrid technology is one of the solutions towards significantly higher production of food grains. One of the main constraints in this process is supply of high-cost seed-input for every season and dependence of the farmers on the multinational business organizations. To tackle this vital problem as well as to gain the fruit of this essential technology, production of hybrid seed of different cereal crops by the farmers in their own field is one of the solutions. To give an idea about the process of production of hybrid seed of maize, two one day orientation was organized on 19th May & 8th. November, 2011 in collaboration with the State Seed Certification Agency of Directorate of Agriculture, Govt. of West Bengal as well as taking supports from the private experts. Ninety six group-leaders, entrepreneurs and Krishi Prayukti Sahayak of the Govt. participated in the one day programmes.

Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
KPS, NGO Extn. Workers etc.	1	2	90	6	96

2.12 Farm Mechanisation

A venture has been taken under RKVY scheme in West Bengal to orient the grass root level extension workers of Agriculture (KPS) to refresh them with the information of advance farm mechanisation situation. During 2011-12 five training programmes on Farm Mechanisation were conducted for this purpose for the Govt. grass root level extension workers of West Bengal. Different aspects of Farm Mechanisation were discussed along with demonstration of use of some implements /machineries. Different schemes supporting farm mechanization by the Govt. was also discussed. The trainees were provided with some useful tools related to farm implements and machineries for practice. Use of computer/ internet for advanced information was also part of the course. A book on 'Farm Machinery, published by ATC/ SAMETI was also provided to each trainee as training material. A total of one hundred trainees attended the training programmes from the districts of Howrah, Purba Medinipur, North 24 Parganas, South 24 Parganas , Birbhum and Nadia.



Target group	Duration (day)	No. of course	No. of total participants		
			Male	Female	Total
KPS	5	5	99	1	100

“You can't cross the sea merely by standing and staring at the water”

– Rabindranath Tagore

III. TRAINING FOR DISTRICT & OR BLOCK LEVEL EXTENSION FUNCTIONARIES

For Category-III, i.e. for the district and block level extension functionaries, the major courses conducted are- Application of ICT in Modified Agricultural Extension reforms, Farm Mechanisation Extension, Gender Mainstreaming, Seed production of Hybrid maize, PGDAEM Programmes, Public Private Partnership, Urban Agriculture, Climate change and agriculture etc. Totally 14 such programmes for category-III have been conducted and 457 Extension functionaries have participated.

Sl. No.	Title of the course	Target group	Durations (day)	No. of course	Male	Female	Total
1.	Application of ICT in Modified Agricultural Extension reforms	BLEF and DLEF	2	1	23	-	23
2.	Farm Mechanisation Extension	BLEF	5	1	25	3	28
3.	Gender Mainstreaming	BLEF	5	1	25	8	33
4.	Seed production of Hybrid maize	Seed grower; BLEF	1	1	48		48
5.	Public Private Partnership	DLEF, BLEF, KVKs,	3	1	20	-	20
6.	SLTP on IPM	BLEF, University research scholar, KVKs, NGO executives	30	1	39	1	40
7.	Urban Agriculture	BLEF and DLEF	3	1	17	3	20
8.	Climate change and agriculture	BLEF and DLEF	5	1	19		19
9.	PGDAEM Programmes	BLEF and DLEF	5	4	202	7	209
10.	Internship on Animal Husbandry	BVSc final year students of WBUAFS	15	2	12	5	17
Total				14	430	27	457

* BLEF – Block Level Extn. Functionaries.

* DLEF – District Level Extn. Functionaries

3.1 Application of ICT in Modified Agricultural Extension Reforms

Extension reforms are underway and integration of new Information and Communication Technologies (ICTs) are rapidly transforming the agricultural extension. The ICT enabled extension systems are acting as a key agent for changing agrarian situation and farmers' lives by improving access to information and sharing knowledge. ICT based agricultural extension brings incredible opportunities and has the potential of enabling the empowerment of farming communities. Extension practitioners are excited

“The brain and muscles must develop simultaneously. Iron nerves with an intelligent brain – and the whole world is at your feet”

– Swami Vivekananda

to experiment innovative ICT initiatives. Experiences on, ICTs for Agricultural Extension, initiatives are showing encouraging results and also complementing conventional extension communication methods. At the same time, it is also a challenge to place rural ICT infrastructure, developing appropriate content, ensuring sustainability and scaling-up. Keeping this in mind a two-days training programme on 'Application of ICT in Modified Agricultural Extension reforms' has been organized for the ATMA officers of West Bengal from 24 – 26 November, 2011. A Total of twenty three officers from different district of West Bengal participated in the training programme.



3.2 Farm Mechanisation Extension

Though population is increasing, the participation of population in agricultural activities is decreasing due to diversification of way of livelihood of rural people. On the other side for increasing productivity, lowering cost, performing different agricultural activities at proper time etc., farm mechanisation has become as one of the essential component of agricultural development along with its growth. To orient on this aspect, a 5-day training cum workshop was organized during 12-16 March, 2012 for



the block level extension functionaries from the Govt., KVKs and NGOs on 'Farm Mechanisation Extension'. Different aspects of Farm mechanisation like present status, scope of development, making agricultural implements and machineries farmers-friendly', specially women farmers friendly, trend of advancement of farm mechanisation, different schemes on farm mechanisation were dealt with the expertise of MANAGE faculty, University faculty, Corporate sectors dealing with farm mechanisation, SAMETI faculty etc. Twenty eight extension functionaries from the district of Burdwan, Birbhum, Howrah, South 24 Parganas, North 24 Parganas, Purba Medinipur etc.

were participated that training cum workshop. The programme was organized in collaboration with MANAGE, Hyderabad on the module prepared by Central Institute for Farm Mechanisation, Bhopal.

3.3 Gender Mainstreaming

Mainstreaming Gender is one of the issues in respect of proper use of human resources, particularly in agricultural sector. A 5-day training programme on 'Mainstreaming Gender' was organized in collaboration with National Institute of Agricultural Extension Management, Hyderabad during 25-29 July, 2011. Different aspects of gender mainstream like, application of PRA for gender analysis, gender

"Anyone who has never made a mistake has never tried anything new"

– Albert Einstein



Fisheries and NGOs participated the programme. Theoretical discussion, group exercise, experiential learning process and filed exercise were the method of the training.

3.4 Seed production of Hybrid maize

The High Yielding Varieties of the individual crops, particularly, for the food grains have given a level of production which met the requirement up to a certain time after Green Revolution. To cope up with the population growth, further increase in productivity is needed and the scientists have invented different hybrid varieties of crops. Though the hybrids of vegetables are very popular, cultivation of hybrid of the food grains, like maize, is still not so common. One of the bottlenecks of cultivation of hybrid maize is availability of hybrid seeds. Production of hybrid seeds of maize need some more careful culture and skill which our farmers, even the extension workers are also not equipped with. Keeping the scenario in view, a seminar cum workshop on 'Seed production of Hybrid maize' has been organized in collaboration with State Seed Certifying Agency of the Department of Agriculture on 16th. August, 2011. Forty eight participants including the Additional Directors of Agriculture, KPS, progressive farmers, seed dealers joined the programme from the district of Howrah, South 24 Parganas and North 24 Parganas.

3.5 Public Private Partnership

A 3-day programme on 'Public Private Partnership' was organized during 11-13 July, 2011 at SAMETI. District and Block level extension functionaries participated in that five days training cum workshop programme. Need, scope and potential of public private partnership, different success stories, agri-clinic and agri-business scheme, networking for partnership, successful agreement for contract farming and different other related topics were discussed in the training programme. Dr. D. Sen, Ex-Director of Extension of BCKV; Dr. Chandrima Sinha, Assistant Professor, EIILM; Dr. R. N. Ghatak, Vice President Srei-Sahaj Agricultural service; Sri Sudipta Mukherjee, Manager,



"Finish the few duties you have at hand, and then you will have peace"

– Sri Ramakrishna

Spencer India along with the faculties of SAMETI acted as resource persons. The participants were taken to Caventer Fresh of Barasat for exposure visit. Twenty trainees successfully participated in the training programmes.

3.6 Season Long Training Programme on Integrated Pest Management on Rice

The Central Integrated Pest Management Centre (CIPMC) under Department of Agriculture and Cooperation, Govt. of India is mainly for promotion of Integrated Pest Management (IPM) in agriculture throughout the country. IPM is the most crucial component of 'Sustainable Agriculture' when there is question of food security for more than 120 crore population. On the other side, it is definitely a serious concern that every year India losses 20-30 percent of its crop production due to different crop pests. Rice is the main food grain for the Indians along with wheat. The rice only, incurs loss due to different pest attack to an extent of 30 percent. On the other hand to tackle this



pest population, the toxic chemicals are used which is not only destructive for environment imbalance but also causes toxicity to the human being itself, in-effective pest control and high cost of production. In such situation the Integrated Pest Management (IPM), which effectively manages pest population, keeps the environment least disturbed and considers the safe chemical as the last option, is very crucial for agriculture.

A one month 'Season Long Training Programme on Integrated Pest Management of Rice' covering major part of the rice plant growth was organized in collaboration with CIPMC, Govt. of India and Dept. of Agriculture, Govt. of West Bengal during 29th August- 27th September, 2011. On 29th. August, 2011, in inaugural function, Dr. V.K. Yadava, Plant Protection Adviser, Directorate of Plant Protection Quarantine and Storage under Ministry of Agriculture of Govt. of India was the Chief Guest. Sri Biswanath Mandal, Additional Director of Agriculture and Sri Sunil Kanti Das, Joint Director of Plant Protection, Department of Agriculture, Govt. of West Bengal acted as Special Guests. Swami Suparnananda, Secretary, Ramakrishna Mission Ashrama, Narendrapur inaugurated the function by lighting the lamp.

The major objective of the course is to create Master Trainers throughout the state on this special technology, which will further disseminate the technology effectively up to the farmers' field in the mode of 'Farmers' Field School'. Forty participants including the Assistant Director of Agriculture from different districts, University Scholars and trainees, KVK persons and NGO executives joined the course. The main features of this course are emphasis on more field exercise and action research through which the participants will gain deep confidence about the technology. Another important aspect of this training is regular interaction of the Master Trainers with the farmers in farmers' field for the purpose of practicing the process skill of dissemination of this technology. This practice was generally done at the end of each week after having the total lesson of the week.

"Science without religion is lame, religion without science is blind"

– Albert Einstein

On 8th September, 2011, Sri Rabindranath Bhattacharya, Honorable Minister In-charge of Agriculture met the trainees at ATC, Narendrapur. In his address he narrated the importance of IPM in agriculture and present the desire of the Govt. to move agriculture to its' excellence. Sri Bhattacharya took information about the progress of the course.

The curriculum was developed emphasizing 5 main sectors of IPM and rice culture. viz.

- Different Pests of rice (Insect, Diseased, Mite, Rodent, Weeds, Nematode), their nature of damage, severity and way of management
- Natural Enemies in rice field and their role
- Different aspects of rice plant and rice culture
- Participatory Action Research in relation to IPM
- Different managerial aspects in implementation of IPM

Among different pests of rice, the key pests like Brown Plant Hopper, Leaf folder, Stem borer, Ear cutting Caterpillar, Blast, Sheath Blight, Sheath Rot, Tungro, Weeds, Rodents, Nematodes etc. were



discussed with an emphasis to identification, life cycle, nature of damage, severity, perpetuation favourable and unfavourable factors and way of tackling with economics. Both discussion and field observation were given importance in all cases.

With respect to the Natural Enemies, both discussion and field observation on different egg parasites, larval parasites, pupal parasites, predators including spiders, entomogenous pathogens were held. Special lectures were organized on spiders, hymenopteran parasites, mass culture of parasitoids etc.

Rice plant as an entity is very important in relation to its interaction with different ecological factors. Rice plant physiology and botany, different growth stages etc. were taken under discussion and study. Different components of rice culture like, varieties, seed bed management, water management, integrated nutrient management and its relation to the pest population regulation was the essential part of the training. Emphasis was on resistant varieties, seed pathology- seed treatment, judicious and proportionate use of NPK and micronutrients, essentiality of organic matter etc.

The Participatory Action Research (PAR) was used in different aspect as a tool for building conviction of the participants to different key areas of IPM. This conviction is transferred by simulating problematic situation (faced by the farmers) and actions as field experimentation.

Defoliation of leaves (10%): 10 percent leaves of each hill were cut manually simulating the damage of Leaf folder larva or any other defoliators at tillering stage. It was observed that the damage was fully compensated within next one month time and no difference in yield attributes were found.

Seed Quality essential for good yield: Some grains were taken from seed stock (70 gm numbering 850).

“He alone is the true teacher who is illumined by the light of true knowledge”

– Sri Ramkrishna Dev

Observation (i) Diseased grain found 6.94%, Healthy grain-88.94%, Chaffy & unfilled grain-3.05%, damaged grain (insect etc.)-0.23%.

Observation (ii) Healthy and unhealthy grains with 50 number each were tested for germination. Cent percent healthy germination for Healthy seed and only 30 percent healthy germination from unhealthy seed.

Conclusion: Seed should be properly processed: proper time of harvest, drying, cleaning, grading, storing and treating.



Natural Enemies in different agri-micro niche:

Places selected: Rice field, Field bund, Fallow land, nearby field (pulse).

Observation: Maximum number (52) in field bund (3 sq.m area) and then in descending order in rice field, fallow land/pulse field. In all the cases spiders dominated. Others are descending order in frequency - dragon fly, ground beetle, wasp, lady beetle, etc.

Effect of pesticide on Natural enemies: Pesticides are considered antagonistic to the NEs though both of them (NEs and pesticide) target the same pest. Dichlorvos, Chloranthranilaprone, Chlotianidin and Carbendazim sprayed on NEs at recommended doses and observation on mortality were taken. For NEs, dragon fly, damsel fly, spider, lady beetle, ant, ground beetle and honey bees were taken into consideration.

Carbendazim was found safest, where no mortality of the natural enemies were found. All other three pesticides kills the NEs up to 90 percent within four hours. In case of dichlorvos quick knock down effect was found and 95 percent mortality of NEs observed. Chloranthranilaprone was observed with slower action to mortality of NEs in comparison to the others.

Sl. No.	Name of insecticide	No. of natural enemy released	% Mortality with time			
			After 30 minutes	After 60 minutes	After 90 minutes	After 120 minutes
1	Dichlorvos	20	95	95	95	95
2	Chloranthranilaprone	20	30	60	75	95
3	Clothianidin	20	55	80	85	95
4	Carbendazim	20	00	00	00	00

The IPM definitely includes the skill of management. To equip the participants on managerial aspects of the training, the IPM –protocol and its implementation, Field Demonstration and its protocol, conduction of Farmers Field School (FFS), Organizing training, implementation of participatory events,

Men are more valuable than all the wealth of the world

– A nonymous

managerial aspects of organizing season-long programmes etc. were thoroughly discussed. Besides that, the skill of integration of different methods, considering the economic aspects of the events, interaction of ecological parameters in these contexts etc. were discussed in detail.

Farmers Field School: Four farmers' field sites were taken at the villages – Goalpota, Diha, Gangajwara and Khodati in Sonarpur Block. At every Friday about 30 farmers of the respective sites are discussed on field situation after active participation in observations. In Agro-Ecological Situation Analysis (AESAs), Number of pest, number of defender, crop growth stage, situation of water, weed, soil etc. and weather situations were examined/ considered and then participatory decisions were taken on pest management. Farmers gained the confidence on the process of IPM and learnt to take decision on pest management aspects.

Experts from different centers of CIPMC spread over the states, professors of the Agricultural Universities like Bidhan Chandra Krishi Viswa Vidyalaya, Agricultural Faculty of the Calcutta University, experts from Zoological Survey of India, National Plant Protection Training Institute, Hyderabad, Zonal Agricultural Research Station, Dept. of Agriculture, SAMETI, Narendrapur, representative from Pesticide Association of West Bengal, NGOs with experience of implementation of IPM programme etc. conducted different sessions.

The Season Long Training programme (SLTP) covered more than 75 hours of field practical, 20 hours of Farmers Field and Farmers participation and more than 25 hours of interactive sessions. Besides those, documentation of pest infested samples, pest and natural enemy samples and above all a dissertation on the overall training by the each trainee was part of the curriculum.

Forty trainees from the Department of Agriculture, Govt of West Bengal, Krishi Vigyan Kendras of the state and executives of different NGOs successfully participated the SLTP.

3.7 Training workshop on 'Urban Agriculture'

To reach the target of desired agricultural growth, all possible sources of agricultural production have to be explored. The urban area, though apparently not known for agriculture, is also found an effective source of agricultural production and large scope of improvement of the quantity and quality of produce lies there, if the urban people, who deal with agriculture/ horticulture are oriented/ trained



in proper way. Keeping this potential in view, a 3-day workshop on 'Urban Agriculture' was conducted in collaboration with MANAGE, Hyderabad, during 17-19 August, 2011. Different sessions revealing urban agriculture, like main issues of urban agriculture, terrace gardening, home gardening, urban waste management, urban agriculture related projects, role of agripreneurs in promotion of urban agriculture etc. were discussed. In addition, experience sharing, success story discussion and exposure visit was also done as part of the programme. Twenty number of candidates including Assistant Director of Agriculture, Officers of Horticulture, Agripreneurs, persons at

"The brain and muscles must develop simultaneously. Iron nerves with an intelligent brain – and the whole world is at your feet"

– Swami Vivekananda

present dealing with components of urban agriculture etc. participated in that workshop from the district of South 24 Parganas, Howrah, Burdwan, Hooghly etc. Dr. N. Balasubramani from MANAGE, Dr. B.C. Ghosh from IIT, Kharagpur, Dr. S.L. Rehaman, Joint Secretary of Agri-Horticultural Society of West Bengal; Sri Tapan Saha, Senior Scientist from IESWM, Smt. Moutusi Dhar from Directorate of Horticulture along with NGO (DRCSC) acted as resource person of the programme.

3.8 Climate change and agriculture

Global Warming and as a result climate change is one of the greatest concerns to the scientists now a days. Agriculture is one of the most important sectors throughout the world as well as in India where there is tremendous pressure on increasing production for food security and on the other side natural resources are not responding in desired level as a result of climate change. Agricultural scientists, Extension functionaries, farmers – everyone is highly concern to this threat and challenge to establish the coping mechanism for maintaining the quality and quantity of the agricultural products in the context of climate change.

A 5-day course was organized on 'Climate change and Agriculture' in collaboration with the National Institute for Agricultural Extension Management (MANAGE), Hyderabad from 6th to 10th Feb, 2012. All together 19 block and district level officers related to the subjects of Agriculture and Animal Husbandry of different districts, KVKs, participated in the course. Different sessions like: food security, water management in the context of climate change, insect pest management vis-a-vis climate change, effect of climate change in fisheries and its strategy for mitigation, bio-diversity and coping agricultural technologies, climate trend analysis and management strategies to climate change, carbon markets and clean development mechanism, effect of climate change in ARD and its strategy for adaptation and mitigation, community based disaster risk management, contingency planning and management system for adaptation of climate change in agriculture, policies and programmes to climate change, filed extension strategies to help in adaptation and mitigation of climate change in agriculture etc. are different sessions in the course. Experts from Agricultural University, Central Institute of Fisheries, School of Energy Studies, Jadavpur University, Agrl. Dept. and ARD of Govt. of West Bengal, faculty of MANAGE & SAMETI West Bengal are the resource persons during the programme. A half day field trip was also conducted at Tona bio-diverse village of North 24 Parganas.



Experts from Agricultural University, Central Institute of Fisheries, School of Energy Studies, Jadavpur University, Agrl. Dept. and ARD of Govt. of West Bengal, faculty of MANAGE & SAMETI West Bengal are the resource persons during the programme. A half day field trip was also conducted at Tona bio-diverse village of North 24 Parganas.

3.9 Post Graduate Diploma in Agricultural Extension Management (PGDAEM)

In order to professionalise public extension service for effective delivery and bridge the knowledge gap, MANAGE, Hyderabad launched a Post Graduate Diploma in Agricultural Extension Management (PGDAEM) in distance education mode for the agricultural and allied sector officers. In West Bengal SAMETI is coordinating the course for the West Bengal cadres. During this year two term end examinations

“Let New India a rise-out of the peasants’ cottage, grasping the plough;
out of the huts of the fisherman, the cobbler, and the sweeper”

– Swami Vivekananda

and two contact classes are organised in which a total of 209 officers attended the programmes of which 7 are lady officers. For details of PGDAEM is given in chapter X of this reflection.

3.10 Internship of Final yr. BVSc students

Two 15-day Field internship of 10 veterinary final year students was organized in collaboration with the West Bengal University of Animal and Fishery Science in two batches during 02- 16 April, 2011 and 18th. April- 2nd. May, 2011. Practical aspects of different dairy technologies, dairy farm management, dairy extension in the villages etc. were on the learning issues.

IV. WORKSHOP – SEMINAR

Besides training courses, the institutes organised several seminars – workshops for all levels of participants and some of them are - ISOPOM – Review & Planning Workshop, State level workshop on ‘Implementation of Community Radio Station’, Preparatory Workshop for ‘Capacity Building of Farmers of Darjeeling under INSIMP programme’, National level workshop on ‘Modified Guidelines of ATMA’, Workshop on ‘Traditional agricultural knowledge system and sustainable agricultural development’, Seminar on ‘Vedic agriculture and its relevance at present time’, Seminar on ‘Zonosis’, Workshop on ‘Green Revolution in Eastern India’, SAMETI Review & planning Workshop etc. District & block level extension officers from various departments, KVK representatives, NGO executives, KPS, SGH leaders etc. actively participated in these seminar-workshops to make those programmes successful. A total of 749 people participated in 11 programmes.

Sl. No.	Title	Date	Target	No. of participants
1.	ISOPOM – Review & Planning Workshop	29th Sept, 11	Farmers, BLEF	60
2.	Workshop on ‘Implementation of Community Radio Station’	22-23 Dec, 11	KVK representatives	22
3.	Capacity Building of Farmers of Darjeeling under INSIMP programme (Preparatory Workshop)	8-9 Feb, 12	ADA, Experts of KVK, ZARS, Farmers etc. of Darjeeling district, SAMETI experts	18
4.	Workshop on ‘Modified Guidelines of ATMA’	3-5 Nov, 11	BLEF – of WB, Manipur, Maharastra, Punjab, Orissa, Tamil Nadu, Chattishgarh & Assam	26
5.	Seminar on ‘Traditional agricultural knowledge system and sustainable agricultural development’	19th Jan, 12	BLEF, DLEF	298

“Try not to become a man of success. Rather become a man of value”

– Albert Einstein

Sl. No.	Title	Date	Target	No. of participants
6.	Seminar on 'Vedic agriculture and its relevance at present time'	11th June, 11	Exe. of rural based CBOs, NGOs of different district	130
7.	Seminar on 'Zonosis'	4th Feb, 12	Govt. ARD officials, Pranibabdhhu, Technical persons, University students, Farmers etc.	94
8.	Workshop on 'Green Revolution in Eastern India'	10th Aug, 11	Different block & district level officers	51
9.	SAMETI Review & planning Workshop	11-12 April, 16th May & 20th May, 11	SAMETI Faculty members	50
Total		11 prog.		749

* BLEF – Block Level Extn. Functionaries. * DLEF – District Level Extn. Functionaries,
* ADA- Asst. Director of Agriculture

4.1 ISOPOM Workshop

A workshop on Review and Planning of ISOPOM (Integrated Scheme on Oilseeds, Pulses, Oil-palm & Maize) implementation was conducted on 29th October, 2011. The ISOPOM scheme is implemented by the ATC for the last 5-6 years for increasing production and productivity of pulse, oilseed maize etc. From the last year the scheme remains only for oilseed and maize for West Bengal. ATC implements this scheme involving different local NGOs/ CBOs, who has very close contact with the farmers in their respective area. Sixty different NGO executives, successful/ progressive farmers joined that workshop. The gaps of the last year were identified and plan for the current year was made in participatory approach.



4.2 Workshop on 'Implementation of Community Radio Station'

Communicating the farmers and villagers of more than six lakhs villages of India on the aspects of agricultural and rural development within shortest time is a challenge to the Nation. Dept. of Agriculture and Coperation in collaboration with the Ministry of Information and Broadcasting has taken an

“Agriculture is the noblest of all alchemy; for it turns earth, and even manure, into gold, conferring upon its cultivator the additional reward of health”

– Paul Chatfield



the participants an idea about the station and its functions.

initiative to establish Community Radio Stations (CRS) by the Krishi Vigyan Kendras (KVK) in each district of the country to fulfill this objective. To orient the KVKs on CRS a 2-day workshop was organized on 'Implementation of Community Radio Station by the KVKs in West Bengal' during 22-23 December, 2011. The representative of the KVKs along with the experts and experienced person on CRS discussed on the process and modalities for application for implementation of CRS. A visit of the participants to the Satyajit Roy Film Institute CRS was made to give

4.3 Capacity Building of Farmers of Darjeeling under INSIMP programme: Preparatory Workshop

The millet contributes about 8 percent of the total cereal production and more important is that it is grown in rain fed area with less amount of rainfall mainly in arid and semi-arid zones. On the basis of importance of the millets to support agricultural production, growth, nutritional security of the mass, emphasis is being given on better production, productivity, marketability etc. of the millets. For promotion of the millet a special programme under the Rastria Krishi Vikash Yojana has been taken by the Dept. of Agriculture and Cooperation, Govt. of India through the 'Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP)'. In West Bengal the finger millet is found to play an important



role on the Nutritional security of the tribal people of the hills of Darjeeling districts. ATC/ SAMETI, Narendrapur has been given responsibility for the human resource development for Finger millet promotion in the Darjeeling district. A "Preparatory workshop for Capacity Development Programmes (Training) of Progressive Farmers" was organized by SAMETI, Narendrapur at Kalimpong, Darjeeling district during 8-9 February, 2012. In presence of Director, SAMETI; three other SAMETI Faculty members, Deputy Director of Agriculture (Administration), Darjeeling district; Heads and other scientists from the

KVK and Regional Research Station; Additional Directors of Agriculture from the subdivision and the respective block and the progressive finger millet farmers participated in that workshop. On day-1 field visits in the village, where finger millet is grown was made to see the field situation and take views of the farmers. In the 2nd day discussions were held and some decisions were made regarding different aspects of the farmers training on finger millet like, course curriculum, methodology of training, selection procedure of farmers, field visits, resource persons, study and training materials, cost norms etc.

"Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land"

– 1st Earl of Chatham, William Pitt

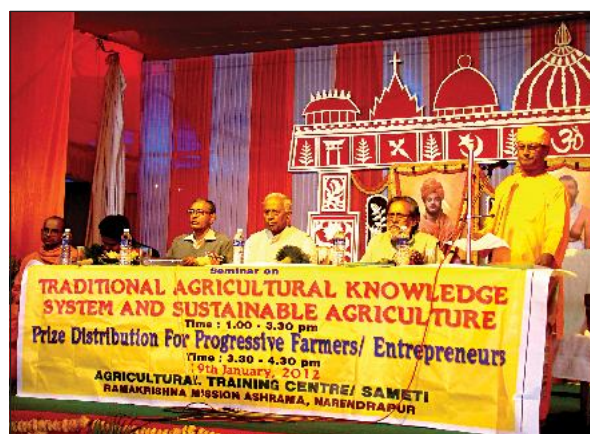
4.4 Workshop on Modified Guidelines of ATMA

The Centrally Sponsored Scheme on State Extension Reforms, popularly known as ATMA programme was started in West Bengal in the year 2005 for making the agricultural extension time appropriate, more effective, more participatory, more coordinated and convergent. On the basis of the experience of implementation and for more affectivity of the scheme, a major modification in guidelines has been made during 2010. A Workshop on 'Implementation of Modified Guidelines of Extension Reforms Scheme' was organized during 3-5 November, 2011 at SAMETI with the participation of the 26 Deputy Directors/ Joint Director/ Directors of different departments related to agriculture and allied sectors from the states of Maharastra, Manipur, Punjab, Orissa, Tamil Nadu, Chattish Garh, Assam and West Bengal. Different aspects, like, New institutional arrangements under ATMA, Extension approaches under modified guidelines, New cafeteria of activities, Modalities and operational experience of Community Radio Station, Research-Extension-Farmer linkages under ATMA, Public private partnership and Market-led extension, Review of Strategic Research and Extension Plan etc. were under discussion. Along with Dr. Senthil Vinayagam, Director of MANAGE, Hyderabad, professors from the State Agricultural Universities, executives of the private sectors and faculties of SAMETI joined the workshop as experts.



4.5 Seminar on Traditional agricultural knowledge system and sustainable agricultural development

An important seminar on 'Traditional knowledge system and sustainable agricultural development' was organized for the extension functionaries of block and district levels along with the progressive farmers, NGO executives, rural entrepreneurs, University students etc. on 19th January, 2012. Honourable Minister In-charge of Agriculture, Govt. of West Bengal, Sri Rabindra Nath Bhattacharya inaugurated the seminar by lighting the lamp. On this occasion the final report of the project on 'Low Cost Rural Technologies' conducted by the IRDM Faculty Centre of the Vivekananda University in collaboration with the Dept. of Science and Technology, Govt. of India was also inaugurated by the Honorable Minister. In his address, Sri Bhattacharya emphasized on respecting the traditional knowledge of the common people in agricultural production along with the importance of the modern scientific knowledge and technologies. Prof. Dr. Anil Gupta of Indian Institute of Management, Ahmedabad, who is well known for



"I can't contain myself when one draws near me and calls me Mother"

– Sarada Devi

his work on traditional agricultural knowledge system and editor of the publication 'Honey Bee' was the Key speaker of the seminar. Dr. Gupta shared his experience of last 30 years in the field of rural development in relation to the traditional knowledge system. He emphasized on more importance and quality work on investigation, validation and extension of those valuable traditional knowledge system. He narrated different live examples, which are followed by farmers of different regions. For example practice of planting tobacco seedling after treating the seedlings in milk checks several diseases and its scientific basis, mainly the supportive enzyme activities, has already been revealed. Dr. Gupta emphasized the factor of drudgery of women in agriculture and proper research to alleviate those difficulties of women in agricultural sector.

Dr. Pijush Pramanik, Director of Horticulture, Govt. of West Bengal made a presentation on Homa Farming. He told about different methodologies of 'Homa' practiced by the 'Rishi' for production of agriculture in ancient time and different experiments already done by the scholars in India and abroad. In conclusion he told that though everything is not still scientifically proved, it has been observed that there are effects on the growth and yield attributes of the crops if Homa can be performed in proper manner. Swami Bhabeshananda, faculty of Ramakrishna Mission Vivekananda University narrated his experience and outcome of the project on 'Low Cost Rural Technologies' in collaboration with Indian Institute of Technology, Kharagpur in relation to the Vedic agricultural knowledge system. Dr. Paritosh Bhattacharyya, Additional Director of Agriculture (Research), Govt. of West Bengal also addressed the participants highlighting the key issues raised by the speakers. Swami Suparnananda, Secretary of the Ramakrishna Mission Ashrama, Narendrapur welcomed the Minister and other dignitaries at the beginning and Dr. Manas Ghosh, Principal of Agricultural Training Centre offered the vote of thanks. The Seminar was organized during the Ramakrishna Mela and Exhibition during 17- 22 January, 2012. About 300 participants joined the programme.

4.6 Seminar on 'Vedic agriculture and its relevance at present time'

After green revolution and with adoption of some disproportionate and injudicious technologies, our country has lost large number of traditional varieties of different crops and traditional knowledge system. In recent time the society has felt the importance of conserving those valuable inputs and knowledge, which are found to be highly important not only for sustainability but also for high profitability in terms of marketing and scientific values. To discuss about sustainable agriculture a seminar on 'Vedic agriculture and its relevance at present time' was organized on 11th June, 2011 in collaboration with Lokasiksha Parishad. More than 130 participants, who were mainly rural development and extension workers in rural areas of 12 districts of West Bengal, associated with different rural Community based organizations and NGOs actively participated in the seminar. Resource persons from IRDM faculty centre of Ramakrishna Mission Vivekananda University shared their project findings on Sustainable Agriculture with Low Cost Technologies with the major knowledge base of Vedic agriculture, Natural farming, Organic farming, Resource conserving technologies of modern agriculture, Innovative traditional techniques, Sri Subhash Paltekar-Zero Budget, Kautilya's Arthashastra, Varahamihira's Virat Samhita, Surapala's Vrikshayurveda, Parasara's Krishi Parashara and own experience. Preparation of organic liquid manures like Sanjibani, Shasyagavya, Kunapajala and Panchagavya, from cow dung and cow urine based fermented product

"As long as I live, so long do I learn"

– Sri Ramakrishna



and their applications were also discussed in detail during the seminar. The major points of discussions were:

- Bio-chemical analysis of the products.
- Effect of application of the products on crop growth and yield.
- Scientific base of those positive effects.

4.7 Seminar on Zonosis

A Seminar on 'Care the Animals' was organized in association with 'West Bengal Vet Society for Animal Welfare' on 4th. February, 2012 on the aspect of 'Zonosis'. About 96 farmers, students, extension functionaries related to Animal health etc, participated in that seminar. Importance of the care of the domestic animals, symptoms, 'Dos and Don'ts' regarding Bird Flue and Swine Flue were discussed in detail.

"I slept and dreamt that life was joy. I awoke and saw that life was service.
I acted and behold, service was joy"

– Rabindranath Tagore

4.8 Workshop on Green Revolution in Eastern India

One day workshop was conducted on 'Green Revolution in Eastern India' on 10th. August, 2011. The objective of the workshop was to orient the district level officers about the guidelines and modalities of implementation of the scheme. Senior Scientist Central Rice Research Institute, Cuttack and Nodal officer for the project 'Bringing Green Revolution in Eastern India' vividly discussed and interacted with the officers on the scheme objective, guidelines, implementation and monitoring system. Due to heavy rain from the previous day, only 51 Agricultural officers could participate.



4.9 SAMETI Review and Planning Workshop

It is essential for any developmental organization to review its works and prior planning on the basis of feedback and need - identification. As the institute is carrying out a very important responsibility in the sector of Human Resource Development of Agriculture and allied sectors throughout the year, review and prior planning is highly essential. Primary need identification of training topics for the next years was done in a workshop during March, 2011. After that three consecutive workshops with the SAMETI faculty and associate members were conducted during 11-12 April, 16th May and 20th May, 2011. Step by step process was followed for review of the works of the previous years and its learning; inclusion of new subjects, omission of less demanded courses and continuation of effective courses; and finally date wise and coordinator wise setting up of the courses adjusting different interacting factors.

B. OFF CAMPUS FIELD TRAINING PROGRAMMES

Outside field programmes are often organised on the basis of situation, particularly on the basis of call from the farmers and to address relevant issues of agriculture of a particular area. Sometimes it is organized on the basis of the implementation of the field programme. During 2011-12, 1-2 day field training programmes were organized in different villages, mainly for the farmers or members of the Farmers' Interest Groups covering four major areas – Crop diversification, Sustainable Agricultural Technology, Quality Seed Production and Plant Protection.



"The Man who works for others, without any selfish motive,
really does good to himself"

– Sri Ramakrishna

Totally 21 Programmes were conducted in different villages on South 24 Parganas (Block – Sonarpur, Baruipur, Jaynagar, Kakdwip, and Patharpratima), Purba Medinipur (Patashpur, Contai, Nandigram) and Paschim Medinipur (Keshpur, Chandrakona) covering 1220 farmers.

Training programmes on crop diversification were conducted in different villages on crops like white sesame, maize, sunflower and groundnut. Demonstration cum training on SRI was conducted as part of advanced technology.

Vermicomposting process by using local resources was one of the most demanded subjects by the farmers and several 1-day training was organized in different villages as a part of the sustainable agricultural technologies.

For transfer of the concept and process on quality seed production, eight programmes were arranged mainly on the crops like paddy, maize, mustard and sesame.

Two programmes on plant protection of crops like mustard and sesame were also arranged.



Sl. No.	Area of topics	Target group	Events	Number of participants		
				Male	Female	Total
1.	Crop diversification and crop management	Farmers	6	386	25	411
2.	Sustainable technology	Farmers, FIGs	5	279	7	286
3.	Quality seed production	Farmers, FIGs	8	356	51	407
4.	Plant Protection	Farmers	2	109	7	116
		Total	21	1130	90	1220

C. OTHER PROGRAMMES

The institute considers to organize farmers' visit as one of the important activities. During the reporting period 15 farmers' visit were organized covering 505 heads. The visit included farmers of different districts of West Bengal as well as outside state:



"You can't cross the sea merely by standing and staring at the water"

– Rabindranath Tagore

Date	Origin of farmers	Total
24th. June 2011	Farmers: Howrah, Purulia	41
30th. June, 2011	Farmers: Howrah, Purulia	30
6th. July, 2011	Farmers: Howrah, Purulia	30
12th. July, 2011	Farmers: Bankura	30
19th. July, 2011	Farmers: Paschim Medinipur	30
25th. July, 2011	Farmers: Bankura	30
25-29 July, 2011	Tripura Women Farmers	16
18th Aug, 2011	Visit of FIAC members of Swarup Nagar, North 24 Parganas	28
26th Aug, 2011	Farmers: Burdwan, Bankura	30
5 Sept. 2011	Farmers : Purulia, Burdwan	30
12 Sept, 2011.	Farmers: Purulia, Burdwan, Hoghly, Bankura	40
16 Sept.2011	Farmers: Purulia	21
23 Sept.2011	Farmers: Purulia, N-24 Pgs	20
26-27 Sept, 2011	Block level ATMA functionaries of Orissa	24
28th Nov,2011	Farmers: Deganga Block, N-24 Pgs	105
Total	15 visit	505

Faculty development / Outside Programmes attended by the faculty members:

Sl.	Programme	Duration	Place	Faculty members
1.	Workshop on 'Revision of agricultural courses of the Govt./ MANAGE'	6-9 April, 11	MANAGE, Hyderabad	Dr. Manas Ghosh
2.	Workshop on 'Training Planning' for MANAGE, Extension Education Institutes and SAMETIs	18-19 May, 11	MANAGE, Hyderabad	Dr. Manas Ghosh
3.	Farmer to Farmer Video Production Workshop cum Training course in Bangladesh	1-14 July, 11	Rangpur-Dinajpur, Bangladesh	Dr. Ashuto sh Das
4.	2nd. International Exhibition and Conference on Agri-Machinery and Equipment	6-10 Dec, 11	IARI, Pusha, New Delhi	Sri Soumesh Mondal & Sri Jagadish Tanti
5.	6th. National Extension Education Congress	17-19 Dec, 11	Goa	Dr. Ashuto sh Das

"The brain and muscles must develop simultaneously. Iron nerves with an intelligent brain – and the whole world is at your feet"

– Swami Vivekananda

2

The Workshop Wing

This wing is one of the important wings of the institute. It serves socio economic upliftment of the people of this locality by providing technical competence, extension services and support. The wing is run by technical qualified personnel and having modern agro-equipments viz. tractor, power tiller, trolley, harvester, power reaper, pump set, sprayer, manual transplanter, drum seeder etc. The services like tillage in the institute's farm and farmers' field, trolley services in the farmers' field, demonstration of different agro implements / machineries during different levels of training are available in this wing. Popularisation of farm mechanisation and implementation of mechanised services are the major objectives of the wing. The services offered by this wing are:

1. Imparting training
2. Tillage by tractors at farmers' field in the locality
3. Tillage by power tiller at farmers' field
4. Trolley services to the farmers
5. Demonstration, trial, improvisation of mechanised agri-implements as better option and drudgery reduction to the farmers.

One of the major tasks of this wing is to impart training, to make the trainees updated and skilled with the running and maintenance of the agricultural implements like tractors, power tillers, pump set, sprayers etc. In this year total five training has been conducted for the KPS on 'Farm mechanisation: Skill upgradation on agricultural implements'. Total hundred trainees attended these courses. The KPS are mainly from district of North & South 24 pgs, Birbhum, Burdwan, Howrah & Purba Midnapur. The detail of the training is given below:

Date	Male	Female	Total
22-Feb	16	1	17
05-Mar	20	0	20
09-Mar	20	0	20
20-Mar	20	0	20
22-Mar	23	0	23
Total	99	1	100

"I tell you one thing - if you want peace of mind, don not fault with others"

- Sarada Devi

This wing also extended their services of the agricultural implements to the farming community of Narendrapur and adjacent areas for augmentation of mechanised farm practises. A status of the services provided during this year is given below:

Sl. No.	Services	Hours	No. of farmers / units availed the facility
1.	Ploughing hours of power tiller	353 hrs. 45 mts.	61
2.	Ploughing hours of tractors	206 hrs. 30 mts.	39
3.	Trolley services	191 hrs.	17
4.	No. of training supported	5 training	100 trainees
5.	Farm implements / machinery demonstrated	Power reaper, manual transplanter, drum seeder	Trial in the farms & demonstration during training



“You can’t cross the sea merely by standing and staring at the water”

– Rabindranath Tagore

3 Trial - Demonstration - Seed Production

Throughout the year need based trial/demonstrations are carried on targeting different technologies to be spread among the farmers or the efforts targeting solution of field problems of the farmers in the farms of the Ashrama as well as in farmers field guided by the experts of the ATC/ SAMETI or with the collaboration of different institute on the basis of the need and supports available.

1. Application of Implement operated dry and direct seeded technique in paddy:

To cope with the climate change effect and also to check the cost of cultivation of paddy, a demonstration was carried out in 2 bighas of land in the Ashrama farms with the support of a implement, manufactured by ATC/ SAMETI. Sowing of the variety MTU-7029 was done in last week of June after a pre-monsoon shower. Weed problem was more in comparison to transplanted rice. In spite of that the total labour requirement was about 20 percent less than the transplanted rice. The yield was at par with the transplanted rice. The field could be made free 10-15 days ago for advance rabi cultivation.

Variety: MTU-7029	
Date of sowing: 25.06.2011	Date of Harvesting: 05.11.2011
Total labour requirement in Demo plot (man days):	11 / bigha
Total labour requirement in general transplanted plot (man days):	14 / bigha
Yield in Demo plot (qntl./ Hac):	41.5
Yield in general transplanted plot (qntl./ Hac):	37

Demonstration of the Implement operated Dry and direct seeded technique in paddy was also conducted in about 15 bighas of land in Pathar Pratima block (Dudheswar, NC-492 and Masuri) in Sundarban and got popularity of the technique. Some modifications of the implement have been suggested for more effectivity of the technique and trial is going on in participation of the farmers.

2. Drumseeder method of paddy cultivation:

The Drumseeder has been introduced in West Bengal about 10 years ago and it is gradually becoming popular among the farmers. A demonstration with the guidance of the ATC experts was made in more than 35 bighas of land in Keshpur area. In spite of little bit more weed problem, the method has been proved advantageous to the farmers in combination of direct seeding machine (Drumseeder) along with Paddy-weeder. Duration of the crop was 9 days less in comparison to the transplanted rice. As per the farmers, the labour requirement was about 10 percent less, tillering capacity is conspicuously high. Drudgery of transplanting of seedling can be totally avoided.



“The brain and muscles must develop simultaneously. Iron nerves with an intelligent brain – and the whole world is at your feet”

– Swami Vivekananda

Farm Activities

Throughout the year different crops were under cultivation as per season on the farmland of the Ashrama under supervision of the ATC experts. Most of the crops were targeted for quality seed production of different crops for distribution to the farmers. The seed production programme was in collaboration with the State Seed Certification Agency, Tollygunj under Directorate of Agriculture, Govt. of West Bengal.

Sl. No.	Name of the crop	Varieties	Level of seed
1	Paddy	IET-4786, IET- 5656, NC- 492, MTU- 7029, Masuri, GB-1	Breeder to Foundation, Foundation to Certified
2	Moong	Samrat	Breeder to Foundation
3	Mustard	B-9	Foundation to Certified

Different demonstrations had also been carried out in the Farm land:

Vegetable production demonstration:

Early, peak season and late season vegetable production was demonstrated on 16 different vegetable with totally 102 varieties with 7.5 square metre area each. The vegetables are Broccoli (no. of varieties-2), Cabbage (21), Cauliflower (23), Leek (2), Carrot (4), Coriander (1), Spinach (2), Lettuce (2), Salary (1), Tomato (6), Zukini (2), Capsicum (2), Pea (2), Radish (8), Chili (12) and Ladies finger (12).



Organic Farming:

Production of crops by using organic preparations and excluding any chemicals were in demonstration in farm land. The crops grown were: paddy, moong and mustard. The organic preparations used were: vermicompost, panchagavya, sashyagavya, kunapajala and sanjivani. The production was satisfactory.

Quality vegetable seedlings were distributed among 72 farmers, who were given an orientation on cultivation of vegetable and later on a visit of those farmers were made to the demonstration plot at farm.

All the above mentioned demonstrations were visited by more than 700 farmers.

Hybrid Maize Seed Production in Farmers Field:

Eight farmers of Gholia village (Baruipur block, South 24 Parganas) were motivated to go for hybrid seed production of maize. The project was done in nine bighas of land and the production was very encouraging (200 Kgs/ bigha). The total seed was purchased by a Private company with high price (Rs.45/ Kg in comparison to the normal maize market price of Rs.15/ Kg). This demonstration has created lot of enthusiasm among the local farmers.

“The tree laden with fruits always bends low.
If you wish to be great, be lowly and meek”

– Sri Ramkrishna Dev

Seed Village

For production of quality seed by the farmers themselves in mass scale the 'Seed village' programme has initiated by the Govt. of West Bengal. Thirteen such seed village programme were conducted in three different areas of South 24 Parganas by the institution with the active participation of the farmers of those areas.

Sl.No.	Area	Name of the village	Crop and varieties	Area in bighas
1	Pathar Pratima	Pathar Pratima-I	Paddy: MTU-7029, IET- 5656	72
2		Ramganga	Paddy: MTU-7029	78
3	Kakdwip	Surendranagar	Paddy: MTU-7029	73
4		Surendranagar	Moong: Samrat	70
5		Gobindarampur	Paddy: NC-492	75
6		Bamanagar	Paddy: IET-5656	77
7		Bamanagar	Moong: Samrat	78
8		Haripur	Moong: Samrat	72
9		Haripur	Paddy: NC- 492	74
10	Sibkalinagar	Lakshmipur	Paddy: MTU-7029	73
11		Madhusudanpur	Paddy:NC-492	72
12		Sibkalinagar-I	Paddy: NC-492	76
13		Sibkalinagar-II	Paddy: NC-492	77

Totally 206 ton of quality paddy seed and 2.7 tons of quality moong seeds are produced in 13 seed villages.



“Finish the few duties you have at hand, and then you will have peace”

– Sri Ramakrishna

4

Soil Testing Unit

Soil testing is the base for management decisions about fertilizer requirements. It involves the estimation and evaluation of the available nutrient status and acidic reaction of a sample of soil. After testing, a fertility map is prepared where the available nitrogen, phosphorous and potassium is marked as low, medium or high. Areas of sufficient and insufficient nutrients are marked out and nutritional requirements are determined. Fertilizers such as NPK, lime or gypsum are recommended to improve soil fertility. Fertilizer application, which is based on soil testing, usually leads to an increase in yields and profits by providing the correct amounts of needed nutrients. It also leads to balance application of nutrients in a field. As nutrient availability becomes less variable, the crop growth is more uniform. Regular soil testing also contributes to environmental sustainability as the use of excess fertilizers can be avoided.

For better production, better profit & sustainable soil management testing of soils is not unknown to the progressive farmers. Testing of soil provides an opportunity to the farmer to have a clear idea about the fertility level of the tested land and the status of plant nutrient elements. The institute has a modern soil testing laboratory, providing service to the farming community to know their soil quality. Testing of soil covers - pH of soil, electrical conductivity, organic carbon, available phosphorus and potassium. This laboratory has been functioning well under the guidance of soil scientist of the institute. More than 15000 soil samples have been tested in the last two decades. Besides testing of soil quality and recommendation of soil health management for crop production, continuous efforts are being made to make the farmers aware about the importance of soil testing. During last one year 118 soil samples have been tested for the eight districts.



From April 2011 to March 2012

Sl. No.	Item	No.
1.	Soil sample analysed during April 11 to March 12	118
2.	District covered – (South 24 pgs, North 24 pgs, Howrah, Jalpaiguri, Bankura, Bhagalpur, Midnapur east & Midnapur west)	8

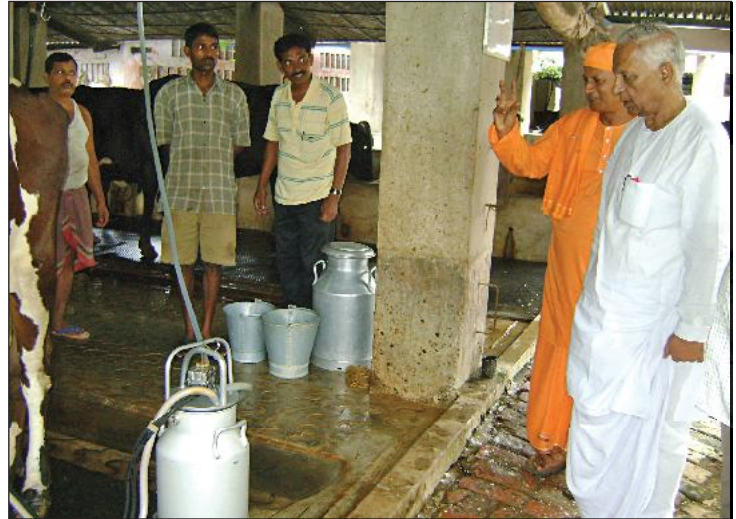
“Science without religion is lame, religion without science is blind”

– Albert Einstein

5

Animal Resources Development

Animal husbandry aspect of agriculture concerned with the care and breeding of domestic animals such as cattle, goats, sheep, hogs, and horses. Animal husbandry has been practised for thousands of years, since the first domestication of animals. Domestication of wild animal species was a crucial achievement in the prehistoric transition of human civilization from hunting-and-gathering to agriculture. Livestock have been an integral component of India's agricultural and rural economy since time immemorial, supplying energy for crop production in terms of draught power and organic manure, and in turn deriving their own energy requirements from crop by-products and residues. Livestock are now more valued as source of food and contribute over one-fourth to the agricultural gross domestic product and engage about 9% of the agricultural labour force. The livestock sector has been growing faster than crop sector.



India's livestock sector is one of the largest in the world. It has 56.7% of world's buffaloes, 12.5% cattle, 20.4% small ruminants, 2.4% camel, 1.4% equine, 1.5% pigs and 3.1% poultry. In 2010-11, livestock generated outputs worth Rs 2075 billion (at 2004-05 prices) which comprised 4% of the GDP and 26% of the agricultural GDP. The total output worth was higher than the value of food grains. Milk production increased from around 20 million tons in 1960s to 115 million tons in 2010-11. It grew at an annual rate of 4.4% during 1990s and 3.8% during 2000s. Although per capita availability of milk has increased from 128 g/day in 1980-81 to 267 g/day in 2010-11, it is far below the requirement of 280 g.



Animal Resources Development, since inception of the Ashrama, got the top priority. Last five decades this 'Dairy & Poultry unit' is successfully serving for the rural communities under the banner of 'Gram Sevak Training

"On this basis- being right and doing right- the whole world can unite"

- Swami Vivekananda

Centre' currently known as 'Agricultural Training Centre', supervised and technically guided by the qualified veterinary surgeons & dedicated staff. This unit including 149 animals of five different breeds and 500 birds provides services like organising fruitful training, demonstration for different levels like farmers, unemployed youths, Self-Help Group members, extension workers, managers, university students etc., artificial insemination, veterinary clinic, maintenance of fodder farm etc. A brief report of this unit for the last one year is given below:

Thrust Areas:

- Strict implementation of breeding policy.
- Improvement of the local cattle breed through cross-breeding.
- Maintenance of Heifer stock
- Increase the production & productivity.
- Improve the quality of milk.
- Proper Maintenance of breeding cycle.
- Management of animal health & disease control.
- Recycling of waste products.
- Make pollution-free environment through cultivation of green fodder, bio-gas plant, vermicompost etc.
- Application of modern technology.
- Practical oriented training to the youth for self-employment.
- Additional income generation for rural women through rearing of cow, goat, poultry and ducks in low-cost technology.
- Distribution of green fodder seeds / cutting



Strength of the Dairy unit:

Sl. No.	Cattle	No.	Breed				
			Pure Gir	HF X G	HF X S	J X G	J X S
1	Milch cow	73	8	19	25	9	12
2	Dry pregnant cow	6	2	1	2	X	1
3	Training cow	1	X	X	X	X	1
4	Pregnant heifer	9	X	4	3	1	1
5	Heifer above 18 months	8	X	3	3	1	1
6	Heifer above 12 months	9	4	1	1	1	2
7	Heifer above 6 months	14	1	4	5	2	2
8	Heifer below 6 months	15	2	5	4	2	2
9	Male calf below 10 months	14	2	4	4	2	2
	Total	149	19	41	47	18	24

Men are more valuable than all the wealth' of the world

– Anonymous

Other resources:

Sl. No.	Unit	Size
1.	Bio- gas Plant. 2 Nos	6 Cubic meter each
2.	Vermicompost unit	20 tons production per year
3.	Green fodder land	7 acres

Modern Equipments

1. Milking Machine.
2. Floor Rubber Mat.
3. A. I. Gun - 3 in one.
4. Ceiling Fan.
5. Chaff-cutter machine.
6. Cream separator machine

Actual Out Come

Sl.	Particulars	Amount / percentage
1.	Average Milk production per day	625 Kg
2.	Average Fat	5.1 %
3.	Average (Solid Not Fat) SNF	8.67%
4.	Minimum Productivity	14 Kg
5.	Maximum Productivity	29.5 Kg
6.	Inter-calving period	16 months
7.	Average Green fodder production /day	1400 kg

Routine Activities**1. Test for diagnoses and diseases:**

- A. Mastitis test: Thrice for all cows per year
- B. Brucella test: Once for all cattle per year
- C. Tuberculin test: Once for all cattle per year
- D. IBR test: Once for all cattle per year.
- E. Blood protozoan examination: Once for all cattle.
- F. Stool and Urine examination: Thrice for all.

2. Disease control:

- A. Vaccination against BQ, HS, and Anthrax: Once in a year
- B. Vaccination for (Foot & Mouth Disease) FMD: Twice in a year
- C. Routine deworming: Four times in a year

3. Bio security:

- A. Use of disinfectants in the cattle shed: Twice in a month.
- B. Use of bio-waste materials in biogas, fodder cultivation and vermi- compost.

“The brain and muscles must develop simultaneously. Iron nerves with
an intelligent brain – and the whole world is at your feet.”

– Swami Vivekananda

4. Cultivation of green fodder

Hybrid Napier: 5 acres

Para Grass: 1 acre.

Seasonal (Cow pea, maize, barseem, oats etc.): 1 acre

5. Poultry Unit: 500 broilers All In – All Out System.**6. Training**

Sl. No.	Course	No. of trainees	Target group.
1.	40-day A.H., A.I. & Poultry	19	Un-employed youth
2.	30-day A.I. & VFA	23	Milk Co-op. Society
3.	45 days A.I. & VFA	5	Pranibondhu
4.	5-day Refresher of Pranibondhu	86	Govt, Pranibondhu
5.	1-day orientation on Poultry keeping	225	Rural Women
6.	15-day Internship	48	B.V.Sc. students

Extension

1. Distribution of fodder cuttings to the farmers:	9000 nos.
2. Numbers of animals treated:	2850 nos.
3. F1RD vaccination:	18000 nos.
4. FDRD vaccination:	6800 nos.
5. FMD vaccination:	600 nos.
6. BQ vaccination:	400 nos.
7. HS vaccination:	650 nos.
8. Anthrax vaccination:	300 nos.
9. Duck Plague (DP) vaccination:	00 nos.
10. Fowl Pox Vaccination	6000 nos.
11. Door to door A.I. (Including field A.I workers):	2256 nos.

Establishment of Live-stock units

Sl. No.	Particulars	No. of units
1.	House Dairy units	21
2.	House Poultry units	225
3.	House Goat unit	50
4.	Commercial Dairy unit	2
5.	Commercial Poultry unit	2

“Do not let worldly thoughts and anxieties disturb your mind”

– Sri Ramkrishna Dev

6

Annual Celebrations

RAMAKRISHNA MELA AND EXHIBITION

Every year different units of the Ramakrishna Mission Ashrama, Narendrapur celebrate their 'Annual Celebrations' through Exhibitions, Seminars, Cultural programmes on their respective areas of activities. The year, 2011 being the 175th. Birth Anniversary of Sri Ramakrishna, all the units of the Ashrama together celebrated in a common place during 17-22 January, 2012 by holding 'Ramakrishna Mela and Exhibition', which included different exhibitions, seminars, vegetable show, flower show, scientists' meet, cultural programmes, prize distribution ceremony etc. focusing two central themes- 'Religious interfaith' and 'Sustainable Development through Human Initiatives'.



On that occasion the Agricultural Training Centre/ SAMETI had displayed an exhibition on 'Vedic Agriculture and its Relevance in Sustainable Agriculture'. The theme was exhibited with 37 coloured posters, 5 models one cut out and several demonstrations. The methodologies/ customs followed in Vedic era, science lied in those customs, the customs still exists in different regions/ trend of resuming those customs and relevancy of several customs in relation to sustainable agricultural production were presented in the exhibition. Use of composts, different materials coming from cow, homa farming, use of different

plants and trees in agriculture created interest among the visitors. In this connection a small booklet has been published containing methodology of preparation and application of different bio-based product with the support of the IRDM Faculty Centre of Ramakrishna Mission Vivekananda University.

Besides that exhibition, a vegetable-fruit and flower show was organized with quality produces from farmers of the surrounding districts. Thirty four different types of vegetables, 18 different types of fruits and 15 different types of flowers were exhibited with the participation of more than 200 farmers/growers.

The day '19th, January, 2012' of this Celebration was marked for agriculture and rural development. The day started with the Re-union Function of the Ex-trainees of the Agricultural Training Centre in the morning. On this occasion Sri Sarthak Barma, Director of Agriculture, Govt. of West Bengal addressed the ex-trainees as Chief Guest of the function. He narrated



"Do not afraid; the Master is behind you, and I am, too, as your Mother"

- Sarada Devi

the present agricultural scenario of West Bengal and the role expected from the extension functionaries at present. Sri Sibabrtra Ghatak, Deputy Director of Agriculture (Training), Govt. of West Bengal honoured the chair of Special Guest of the programme. Swami Bhabeshananda of Ramakrishna Mission Vivekananda University, Belur Math also addressed the ex-trainees as Guest of Honour.

In the afternoon an important seminar on 'Traditional knowledge system and sustainable agricultural development' was organized, which was inaugurated by Honourable Minister In-charge of Agriculture, Govt. of West Bengal, Sri Rabindra Nath Bhattacharya. About 300 participants including the extension functionaries of Govt. and Non-Govt. sectors along with the University students and farmers participated. Prof. Dr. Anil Gupta of IIM, Ahmedabad, Dr. Pijush Pramanik, Director of Horticulture, Govt. of West Bengal, Swami Bhabeshananda, faculty of Ramakrishna Mission Vivekananda University, Belur Math and Dr. Paritosh Bhattacharya, Additional Director of Agriculture (Research), Govt. of West Bengal addressed the participants on different aspects related to the seminar subject.



other prizes were also offered to the farmers, growers for their quality agricultural produces and display in the exhibition. Sri Jayanta Basu, Joint Secretary of Municipal Affairs (formerly Additional Director of Agriculture- Administration), Govt. of West Bengal; Sri Subir Das, Deputy Secretary, Dept. of Agriculture, Govt. of West Bengal and Sri Ashish Lahiri, Deputy Director of Agriculture (Administration), South 24 Parganas, Govt. of West Bengal addressed and encouraged the awardees.

In six days during the Mela, about 2.5 lakh heads joined the Mela by visiting the exhibitions, participating in seminars, workshop, interactions, cultural functions etc.



"If you must be mad, be it not for the things of the world
Be mad with the love of God"

– Sri Ramkrishna Dev

7 Programmes Performance : An Appraisal

With a view to having a vivid idea of the effectiveness of the training courses, evaluation has been considered to be the finest instrument to get real feedback from the persons concerned on the part of implementing organization for its undertaken programmes. In fact, feed back gives enormous opportunity to the Institute to explore existing actual state of affairs of the ex-participants and at the same time Institute also decides about the interventions solicited to be taken by it for the further wellbeing of the ex-trainees.

Agricultural Training Centre/State Agricultural Management & Extension Training Institute organizes ample trainings, seminars, symposiums and workshops etc. throughout the year. During the period from January 2011 to December 2011, the Institute imparted altogether 77 number of programmes under 19 titles involving 2229 number of participants. The total programmes have been clubbed into 3 different categories which are thus, a) Farmers, b) Grass-root level extension functionaries and c) Middle level extension functionaries. First category covered 836 farmers, second one included 1167 functionaries and the last level occupied 226 field level higher officials. Keeping in view of all these figures, the present study was conducted.

T :1 : Total Number of Participants Trained (January - December, 2011)

Sl. No	Category	Male	Female	Total
1	Farmers	383	453	836
2	Grass-root Level Functionaries	1044	123	1167
3	Middle Level Functionaries	214	12	226
Total		1641	588	2229

As regards types of programme included in the aforesaid three different levels, first level encompasses two programmes viz, farmers skill development programme and vermi composting programme, second level includes 9 titles which are Jeebika Sevak, Training of Trainers on Direct Seeded Rice, Pranibandhu, Market-led Extension, Kishan Mitra Training, Bio-intensive Farming, Mushroom Cultivation, Refresher Training of Agri-preneurs, Application of ICT in Modified Extension and Animal Husbandry (AI) and finally third level incorporates 8 different nomenclatures. The programmes are Gender Mainstreaming, Urban Agriculture & Training cum Workshop, State level Training Programme on Integrated Pest Management, Post Graduate Diploma in Extension Management, Farm Business Management, Public Private Partnership, Implementation of Modified Guidelines, Krishi Vigyan Kendra Workshop on Implementation of community Radio Station. Majority of this third category of programmes were collaborative efforts with MANAGE, Hyderabad and Govt. of West Bengal.

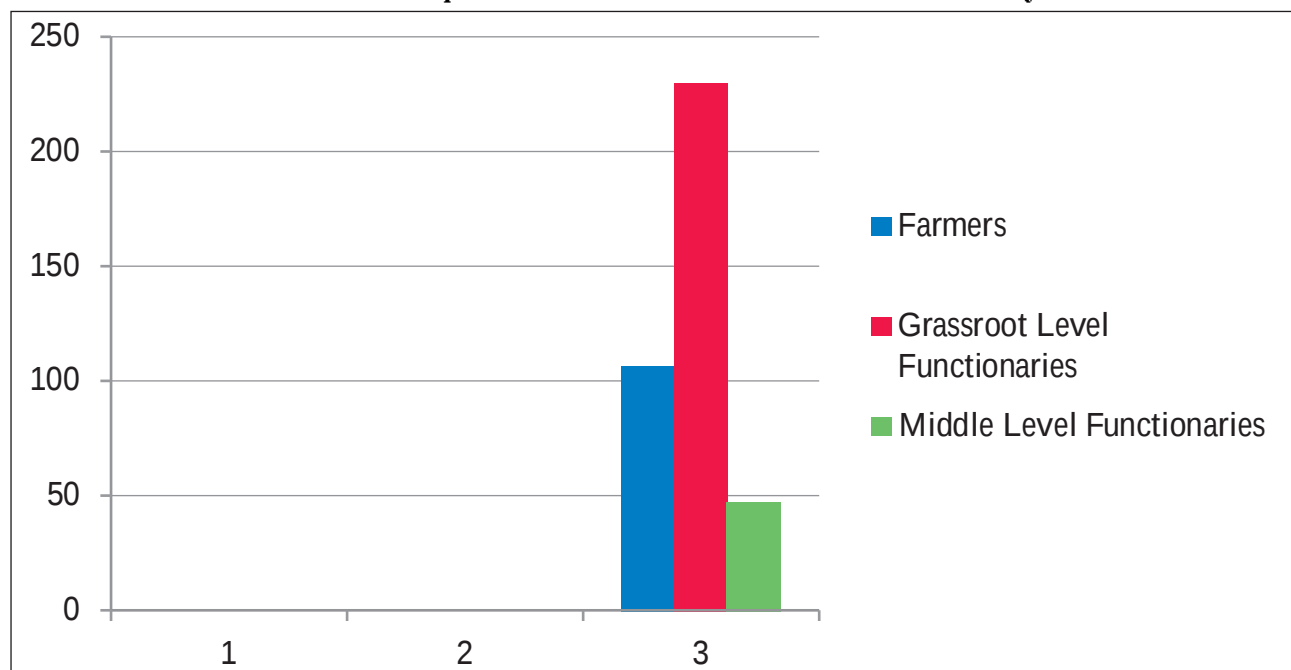
This evaluative study intended to cover around 20% out of the total trainees participated in 77 programmes. Altogether 106 ex-trainees from the farmers level, 229 respondents from the grass root level extension functionaries and finally only 47 Middle level functionaries were brought under the

“Purify the spectacles of your mind, and you will see that the world is God”

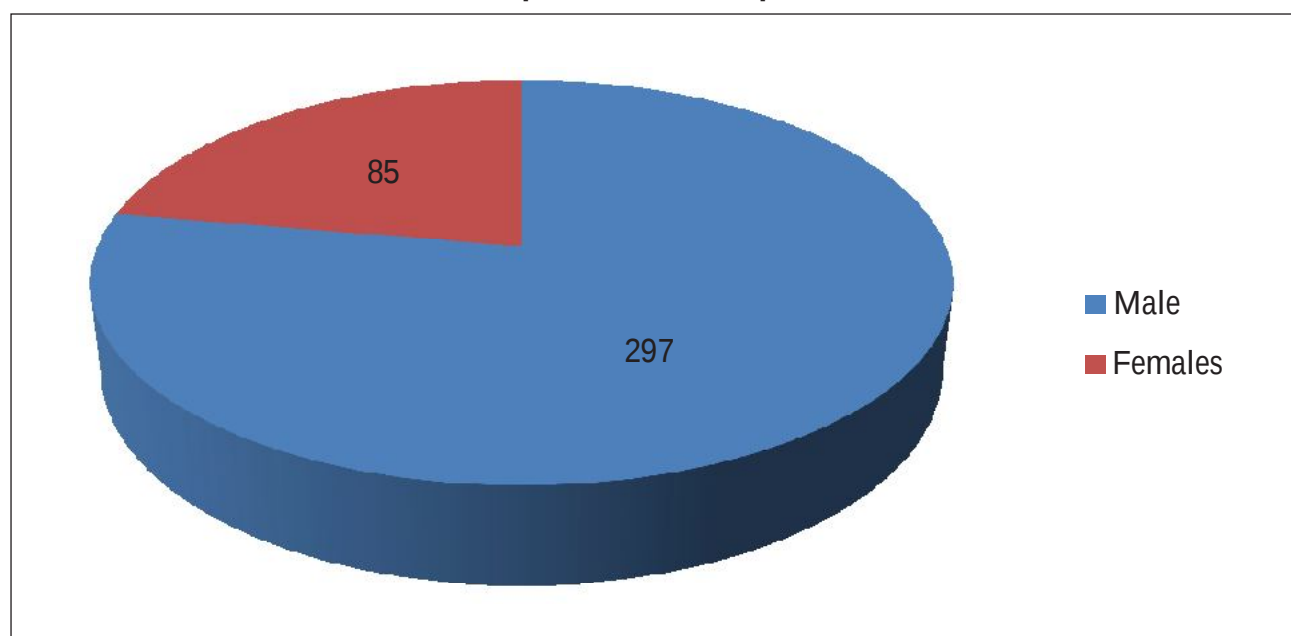
– Sri Ramkrishna Dev

purview of this evaluation. So, all these three level involved a sum total of 382 respondent-participants pertaining to this appraisal study.

Profile of respondents in number covered under the study



Male Female composition of the respondents in number



“As long as I live, so long do I learn”

– Sri Ramakrishna

I. FARMERS CATEGORY:

Sex, Religion & Caste :

In the farmers category, out of the total 106 respondents' 58.5% were males and the number of female participants was 41.5%. In so far the religion is concerned, 2.8% female trainees happened to be Muslim and the rest was Hindu. The participants were also clubbed from the caste point of view. It was evident that 42% participants belonged to scheduled caste group, 1.8% participants were from scheduled tribe group and the bulk 55.66% came from the General Caste Category.

T : 02 : Caste Composition

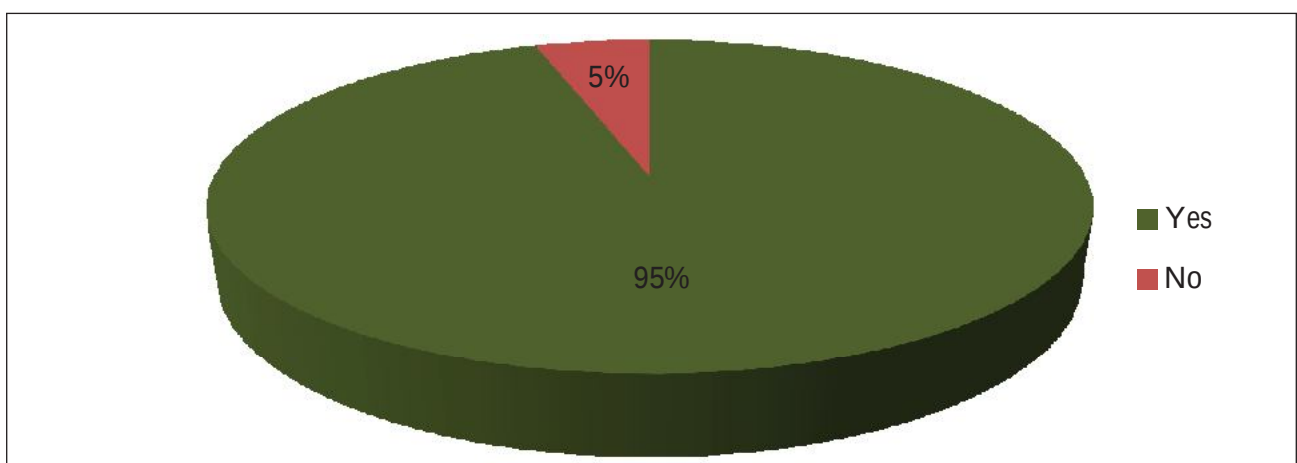
Sl. No	Caste	Participants in per cent
1	Scheduled Caste	42.45
2	Scheduled Tribe	01.89
3	General	55.66
Total		100.00

Usefulness & Degree of Usefulness :

Majority of the participants were satisfied with the training programmes they underwent. Statistical interpretation as it transpired from the study is as follows:-

Ex-trainees were probed regarding usefulness and degree of usefulness of the training programme. Surprisingly enough 95% participants found the courses organized by the Institute being useful. Of the ex-trainees, the courses were seemed to be moderately useful to 53.7% participants, 28.3 expressed their highest satisfaction and the courses were supposed to be partially useful to 13.2% farmers. Courses were felt to be not at all useful to 5% participants and it appeared from their responses that they did not find opportunity to utilize the gained knowledge in their present status.

Usefulness of Training Programmes



"I slept and dreamt that life was joy. I awoke and saw that life was service
I acted and behold, service was joy"

– Rabindranath Tagore

Training Inputs :

Different relevant topics were included in these two courses. Regarding topics appeared to be highly beneficial to the participants, 7 topics were identified by the respondents. Topic Vermi Composting scored highest frequencies i.e. 28%, next to it Home Gardening which constituted 25%, Organic manure and System of Rice Intensification (SRI) bagged 16% respondents.

All respondents in vermi composting course, praised the total programme contents and 60% participants specially highlighted the practical aspect.

Regarding the second most favourable topic, it was reported that Mushroom, Ajolla, Nursery, Vegetative Propagation and Income Generation Programme were very useful to the farmers.

Areas of Usefulness :

Farmers were benefited from the different points of view in attending the courses. In the sphere of usefulness, seven different areas were pinpointed by the ex-trainees. 86.79% admitted that their knowledge were enhanced, 66.03% considered the programmes as advantageous in their working life, 45.28% persons found their income being enhanced, attendance in programmes augmented production of 39.6% persons, pest incidences were felt to be decreased to 27.35% farmers and 33% ex-trainees were able to reduce the cost of production.

Enhancement of Income :

Income is supposed to be an indicator for measuring the effectiveness of the training programmes. Study shows that net income has become enhanced in case of 62.26% ex-trainees while 37.73% has not been able to increase net income.

As regards amount of annual net income enhanced, it is observed that up to Rs.3,000/- per annum net income increased in case of 55.66% ex-trainees and 6.66% farmers made a fare jump to the class interval of Rs.3,000/- to Rs.6,000/- while 37.73% ex-participants have yet to sail towards that direction.

T : 03 : Net Income enhanced per annum

Sl. No.	Amount	Participants in per cent
1	Up to 3000	55.67
2	3000 – 6000	06.60
3	6000 +	--
4	Not applicable	37.73
	Total	100.00

Relation with Neighbours :

Effectiveness of the programmes can also be assessed from acceptance of the ex-trainee to his/her fellow farmers. So, farmers were probed that whether the neighbours have accepted them as enlightened farmers. The response was highly positive since 68.86% farmer-respondents admitted that neighbours made contact with them while 31.13% ex-trainees have not been able to establish their credibility yet.

“Be the change that you wish to see in the world”

– Mahatma Gandhi

Regarding frequency of visitors, a sizable portion of respondents i.e. 30.18% has been reported to receive partial response from the neighbouring farmers, 23.58% got quite good response, 22.64% found moderate response and 23.58% farmer-participants have not been attended by any visitor.

Requirement for Future Well-being :

It indicates the keenness of the farmers to thrive for betterment of their future. In response to above referred query, 7 types of requirement were identified by the respondents. Among these, Improved Training was favoured by 44.33% respondents, 37.73% desired for more learning and exposure, 21.69% sought monetary assistance, 19.8% thought advice was enough for them and less than 10% ex-trainees suggested Marketing, Cow etc. Only 8.49% ex-participants did not make any comment on this score.

Major Obstacles :

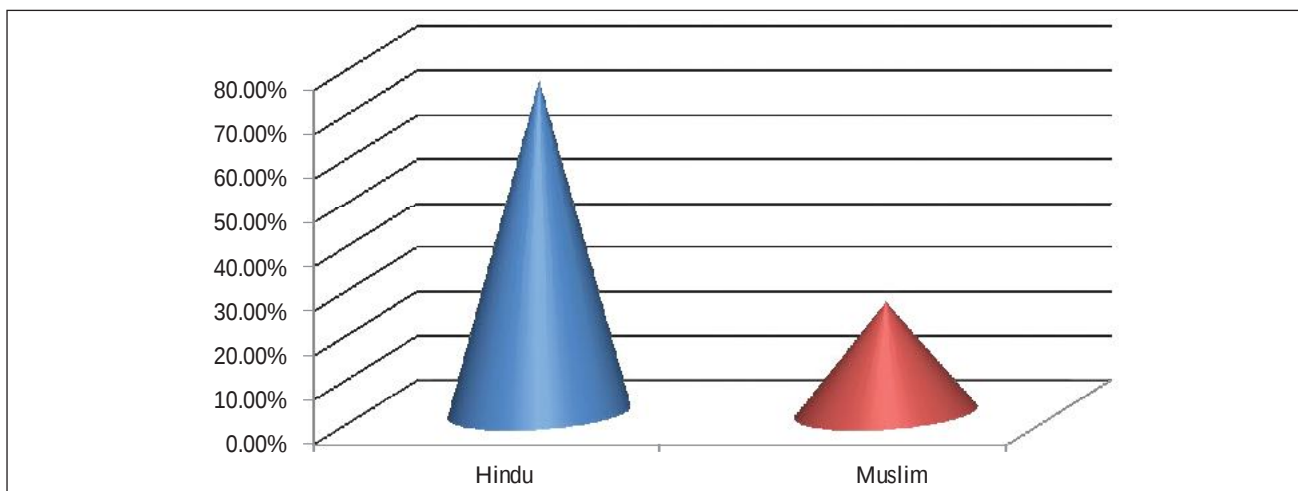
In order to have an idea about the nature of barriers the trainees faced they were asked about it. Study findings showed that the respondent-participants perceived altogether 11 types of obstacles during their post training period. Mainly 3 major obstacles appeared to be crucial to the respondents. Of them, paucity of fund was felt by 21.69% farmers, 18.86% acknowledged that their poor knowledge was the prime barrier where as 16.98% faced difficulty in having inputs in time. All other 7 obstacles namely, Non-availability of raw materials, Non-availability of Spawn, Water Scarcity, Poor Marketing Facility, Political Obstacles for Self-help-group Formation, Further Training, Non-interested Farmers were considered by around 11% respondents. 12.26% farmers kept mum on this issue.

II. GRASS-ROOT LEVEL EXTENSION FUNCTIONARIES :

Religion & Sex, Caste Composition :

At this level 39 numbers of programmes were conducted under 8 titles. SAMETI evaluation team members were able to contact 229 ex-trainees. Here under this category, the female respondents were only 34.49% where as male respondents were 65.50%.

Religion



“The Man who works for others, without any selfish motive,
really does good to himself”

– Sri Ramakrishna

An overwhelming portion of the participants belongs to Hindu religion. This category constitutes 75.10% and Muslim community is composed of 24.89%.

In the realm of caste composition, participants from General Community encompassed 71.18%, 25.32% ex-trainees hailed from Schedule Caste category, and 3.49% ex-trainees joined from Scheduled Tribe Community.

Usefulness & Degree of Usefulness :

All the training programmes held under this level were undoubtedly highly satisfactory as 92.13% ex-participants considered the courses being useful and 7.86% on the contrary, did not find useful. It may indicate that the latter portion of participants did not find congenial environment to utilize their gained knowledge.

Regarding degree of usefulness, it transpired that the 48.47% considered quite good, 34.06% felt moderate, 10.04% opined the usefulness to be partial and the rest 7.42% did not express their comment on this issue.

Training Inputs :

From the responses of the ex-trainees attended the Jeebika Sevak Programmes almost all the training inputs were found to be relevant. Amongst all the topics, vegetative propagation Nursery, Mushroom, Vermi compost, Vegetable Garden & Animal rearing seemed to be highly relevant to the respondents.

Animal Husbandry with Artificial insemination and Pranibandhu Courses' participants were satisfied with the total programme module. They did not mention specifically any other topic.

Participants of the Market-led Extension Course identified Newspaper, Weather Report, Radio Talk and Internet Information topics to be of great importance. Frequencies varied from 60% to 80% regarding the aforesaid topics.

Only 6 participants were there in the Kishan Mitra Training. 4 topics namely System of Rice Intensification, Drum Seeder Technology, Soil Testing & Soil health and Mushroom Cultivation were widely accepted by the participants.

In the 'Bio-intensive course, Biological control of pests got 80% score while all other topics of the course were considered to be pertinent by all the participants.

As regards Mushroom Cultivation, entire course content both theoretical and practical made all the trainees to be confident for being self dependent.

Refresher Training on Implementation of Agri-preneur Course happened to be highly useful to all the participants. Regarding preferences of the topics, New Projects scored 52.17% responses, Subsidy Policy got 43.47% responses, Illustration on Project Paradigm received 23.33% responses and Bank linkages was felt to be useful only 13.33% respondents.

Institute faculty members were able to contact 23 participants of Application of ICT in modified Agricultural Extension. Out of the topics discussed in the course, ATMA, Basic knowledge on ICT and Market Price were thought be very relevant to the participants.

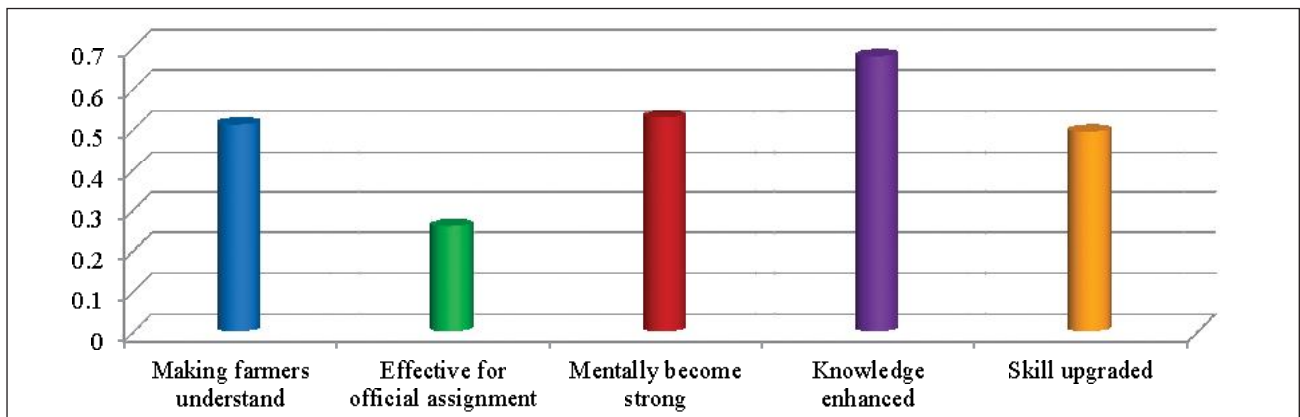
"I tell you one thing - if you want peace of mind, don't fault with others"

– Sarada Devi

Areas of Usefulness :

Altogether 7 areas have been earmarked by the participants attended the programmes meant for grass-root level extension functionaries. Majority of the participants admitted for being enlightened in attending the course. This group constituted 67.68%, next major number of ex-trainees comprising of 52.83% thought that their firmness was strengthened, 51.09% participants considered themselves capable of making other farmers understand, course was supposed to be effective for official assignment to 35.96% and finally 49.34% functionaries' skill was upgraded.

Areas of usefulness



Requirement for Future Development :

Ex-trainees have highlighted 5 different requirements for their future development. Among these requirement, advance training was conceived by 66.37% respondents, More learning or field exposure was solicited by 31.87%, scheme based training programmes, monetary assistance and advice were the necessity to around 8% ex-trainees. 14.84% respondents did not express anything on this issue.

Major Obstacles :

Post training period appears to be much more crucial to the trainees. Owing to lack of numerous problems they could not go for application of gained knowledge for their wellbeing. There were 12 types of problem encountered by the participants, financial crunch and poor infrastructural proved to be highly dominant to majority of them. As Jevika Sevak Training course a significant number of female ex-trainees were not acceptable to the panchayat functionaries. Other remarkable problems like marketing, lack of inputs, improved training, political rivalry, farmers' acceptability etc. troubled the grass root level extension functionaries.

III. MIDDLE LEVEL EXTENSION FUNCTIONARIES :

Among a total of 226 participants, this study managed to cover 45 respondents.

Religion, Sex & Caste :

With regard to religion point of view almost all the participants were Hindu which constituted 97.88% and the rest 2.12 happened to be Muslim. Of the total participants, 93.62% belonged to male category

"You can't cross the sea merely by standing and staring at the water"

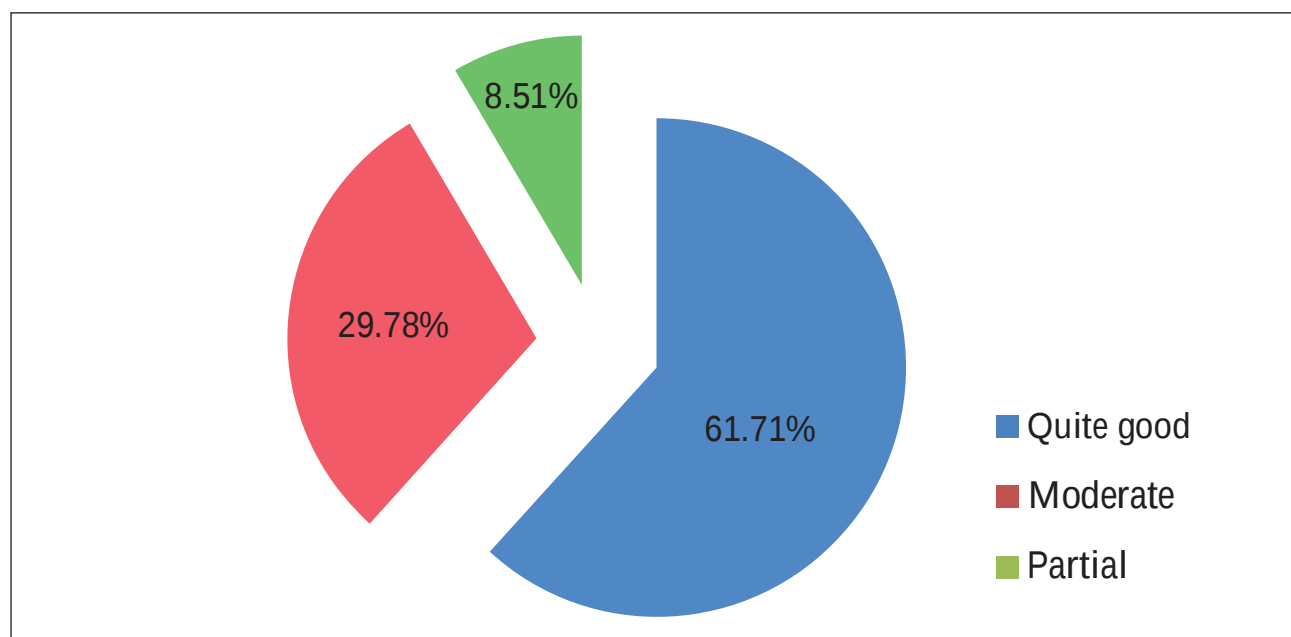
– Rabindranath Tagore

where as 6.38% respondents were females. Generally higher level of programmes fails to involve persons from schedule caste & scheduled tribe or other Back-ward class people. As a result, 91.49% people from General Caste category participated in the aforesaid 8 courses, scheduled caste persons represented 6.39% and 2.12% belonged to Scheduled Tribe Community.

Usefulness & Degree of Usefulness :

All the training inputs appeared to be very much useful to all the participants. Regarding the magnitude of satisfaction as perceived by the respondents it was reported that 61.71% suggested quite good, 29.78% measured as moderate and usefulness was seemed to be partial to only 8.51% respondents.

Degree of usefulness



Training Inputs :

Trainees were asked about the topics preferred by them most & 36 topics were identified as very much useful to the different respondents. Prominent among those topics earmarked by several participants were identification of pests, participatory approach, use of organic manure, marketing, mixed farming, vermin compost & system of Rice Intensification (SRI) etc.

Areas of Usefulness :

In the sphere of areas of usefulness, ex-participant showed 9 different areas. Of these areas, enhancement knowledge took place to 95.74% respondents, 76.59% functionaries thought that their skill was upgraded to a great extent, ability for making farmers understand was felt by 51.06%, training programmes were found to be effective for official assignment to 38.29%, firmness was strengthened for 14.89% and 8.2% ex-trainees considered that training courses helped them for proper planning as well as made aware themselves about the different Govt. Schemes.

“The brain and muscles must develop simultaneously. Iron nerves with
an intelligent brain – and the whole world is at your feet”

– Swami Vivekananda

Requirement for Future Development :

A couple of requirements were sought by the ex-participants for being much more self possessed. A substantial portion of respondents i.e. 61.70% sought advance training, 25.53% ex-participants needed for more learning and field exposure, field exposure on different crops was felt by 12.76% respondents. Certain requirements like monetary assistance, extension of course duration, scheme based training and advice were suggested by a few number of respondents. Only 6.38% ex-participants did not express their requirement.

T : 04 : Requirement for future development

Sl. No	Requirement	Participants in per cent
1	Advance training	61.70
2	More learning or field exposure	25.53
3	Programme duration for 2 months	02.13
4	Field exposure on different crops	12.76
5	Scheme based training	02.13
6	Advice	04.25
7	No Comment	06.38

Major Obstacles :

Middle level extension functionaries also came across various untoward happenings. Their responses towards this issue have been segmented into six different categories. Since the functionaries belonging to this category are compelled to perform their task within stipulated limitations so they do not consider certain predicaments as obstacle at all. As a result 48.93% functionaries did not face any problem. Lack of proper infrastructure was encountered by 10.63% respondents, lack of finance, too much workload, lack of full-fledged knowledge, farmers hesitation and motivating farmer were felt by less than 10% functionaries.

“Finish the few duties you have at hand, and then you will have peace”

– Sri Ramakrishna

8

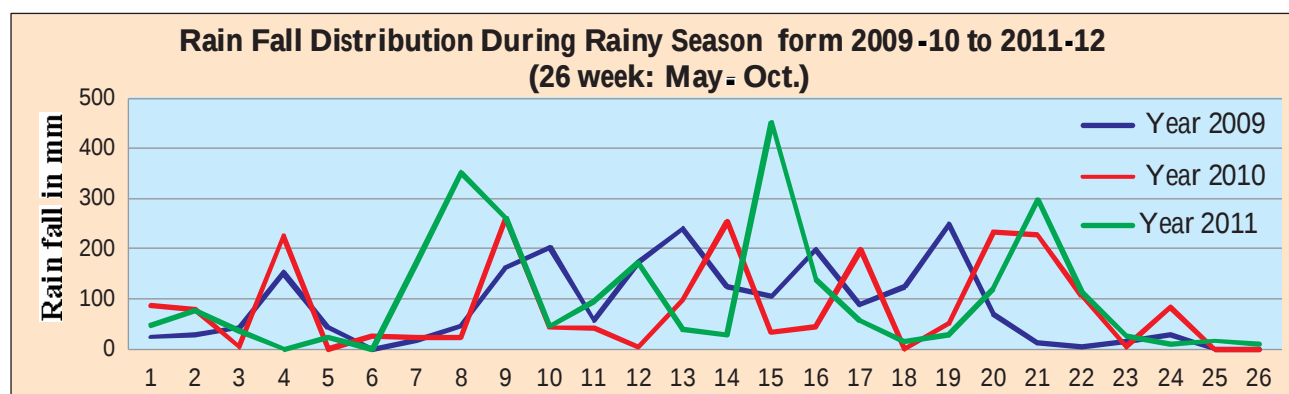
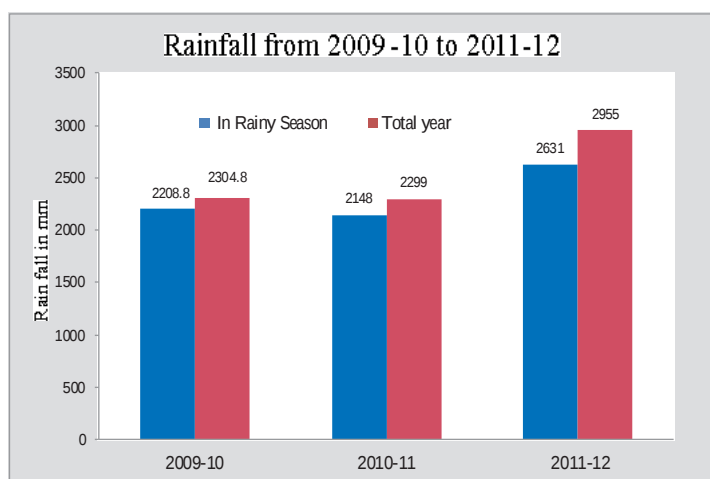
Meteorological Study

Almost all social, industrial, agricultural, commercial, transports etc. activities directly or indirectly are affected by weather and climate. The atmosphere affects human life, animal, micro- organisms, insects, pests, plants, tree's forests and marine culture at all times during every stage of growth and development. Meteorology has therefore, greatest scope on every human enterprise in the modern Life particularly related to agriculture. For the purpose of conducting meaningful trial, demonstration, experimentation, and extension work etc. record of metrological parameters are very important. For essential and basic meteorological data like Maximum Temperature, Minimum Temperature, Relative Humidity (RH) of the air and daily rainfall - a meteorological unit has been established in the farm and data are recorded on regular basis since 2009-10.

Some of the important findings are discussed below.

In relation to agriculture the most significant climatic factor is the rainfall. During last three years the total rainfall was 2304.8mm, 2299mm and 2955mm respectively. Also during the monsoon seasons (form May to October) the rainfall was more (2631 mm) in 2011-12 in comparison to 2010-11 (2148 mm) and 2009-10 (2208.8 mm).

When we compare the rainfall pattern of last three years monsoon months (From May to October – 26 weeks), it is observed that the rainfall is erratic in 2011-12 in comparison to 2010-11 & 2009-10.



“He alone is the true teacher who is illumined by the light of true knowledge”

– Sri Ramkrishna Dev

The **Most Rainy Week** of Narendrapur was in second week of August (7-13 Aug.) in 2011-12 (452 mm) while in 2010-11 & 2009-10 those were on 25th June to 1st July (262mm) and 3rd to 9th September (249 mm) respectively. So the maximum rainfall week is found unpredictable. It is also noticed that in 2011-12 the maximum humid week was observed from 7th to 13th August with an average of maximum humidity 91.71 percent.

Maximum Rainfall-Week																
	June				July				August				September			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
2009-10																
2010-11																
2011-12																

Regarding **Warmest Week** of the year at Narendrapur in the last three years it has been observed that in 2009-10 the week was 23rd to 30th April. The average temperature of the week was 33.5° Celsius. Whereas the Warmest Week remain same in 2010-11 and 2011-12 as 4th to 10th June. The average weekly temperature was 32.93° Celsius in 2010-11 and slightly decreased to 32.36° Celsius in 2011-12. The average humidity during this week was 74.86 percent in 2011-12.

Hottest Week												
	April				May				June			
	1	2	3	4	1	2	3	4	1	2	3	4
2009-10				33.50								
2010-11									32.93			
2011-12									32.36			

In last three years the **Coldest Week** of the year at Narendrapur is lying between middle of December and middle of January. The week was 25th -31st December in 2009-10, where as in 2010-11 and 2011-12 the coldest week were 7th-13th January and 17th -23rd December respectively. The average temperature was 17.06° Celsius in 2009-10, 15.93° Celsius in 2010-11 and 17.36° Celsius in 2011-12.

Coldest Week																																	
	December 15th - 31st															January 1st - 15th																	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
2009-10										17.06° C																							
2010-11																							15.93° C										
2011-12			17.36° C																														

“One should desire of God desirelessness. Desire is the obstacle to liberation”

– Sri Sarada Devi



Week	2009-10	2010-11	2011-12
Coldest Week	25-31 Dec, 2009	7-13 Jan, 2011	18-24 Dec, 2011
Hottest Week	23-30 April, 2009	4-10 June, 2010	4-10 June, 2011
Max. Rainfall week	3-9 Sept, 2009	25 June-01 July, 2010	7-13 Aug, 2011
Max. Humid Week	16-22 July, 2009	10-16 Sept, 2010	7-13 Aug, 2011
Min. Humid week	12-18 Feb, 2009	5-11, March 2011	6-12 March, 2012
Total Rain Fall (mm)	2304.8	2299.00	2955.00

“The tree laden with fruits always bends low.
If you wish to be great, be lowly and meek”

– Sri Ramkrishna Dev

9

Extension Programmes

- A. ISOPOM
- B. IRRI Project
- C. Vermi Village (Teurhat & Ramrudrapur)

A. ISOPOM

It is necessary to increase the oilseed production in our State to meet up about 50 per cent of its deficit. Besides there is a great possibility of increase in area of maize cultivation in our State to meet up partial shortfall of food production. Accordingly the Dept. of Agriculture, Government of West Bengal has taken steps to increase the area and productivity of both oilseed and maize crops through launching a programme entitled “Integrated Scheme on Oilseeds, pulses, Oil-palm and Maize (ISOPOM)” and Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur has been implementing various activities under the scheme since inception.



Most of the lands of coastal zone remains fallow after harvesting of aman or winter paddy possibly due to scarcity of irrigation water and soil salinity. Some farmers used to grow boro or summer paddy from pond water harvested during monsoon rains. But they faced a lot of problems to meet up required irrigation water during ripening stage of paddy. The market price of boro rice is also low. In such situation our Institution tried to motivate the farmers to cultivate sunflower, maize under ISOPOM which requires less water through training and field demonstrations. We were successful but now the challenge has come to

market the huge maize grains. The maize farmers have been trained how to prepare cattle or poultry feed from maize grain and sunflower cake. The farmers are motivated and many feed companies have made linkage with maize growers and purchasing maize grains from them. As outcome of continuous efforts of this Institution the maize and sunflower growing farmers are being benefited economically than earlier boro or summer paddy cultivation. In near future agri-entrepreneurs will be developed in such areas enabling them to prepare feed and market.

“I can’t contain myself when one draws near me and calls me Mother”

– Sarada Devi

Again this Institution has become pioneer in white sesamum cultivation in Paschim Medinipur districts. White sesamum cultivation was started two years earlier in Keshpur and Sabang block of Paschim Medinipur through our initiative. The training centre took initiative to link up the produce of farmers to various companies who were purchasing white sesamum from Gujrat State. The farmers growing white sesamum in Keshpur, Sabang, Chandrokona-1, Chandrakona-2 blocks are getting more price than brown sesamum. They are selling the seeds to the companies and it is expected that more and more brown sesamum areas of such blocks will come under white sesamum.

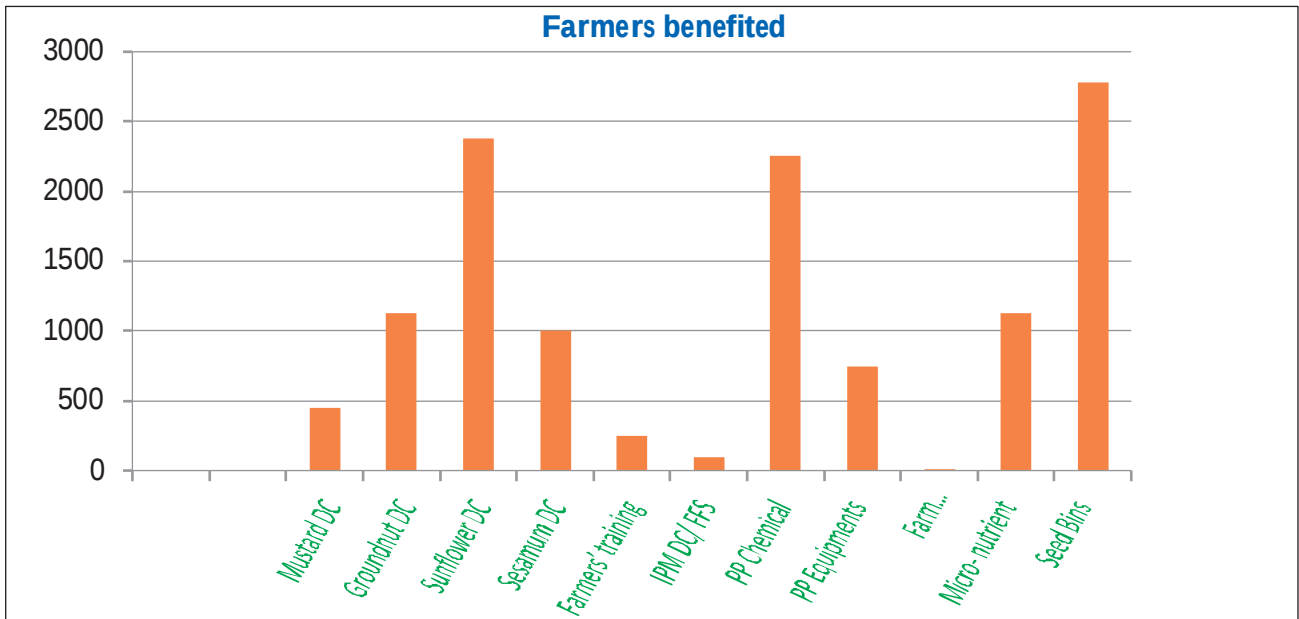
The training centre has been working with farmers of remote rural areas taking the help of local youth organizations. Various agricultural machineries, implements, plant protection equipments such as pumpset, sprayers as well as seedbins, irrigation pipes are being supplied to the farmers through youth organizations in sustainable way. The farmers of 6-7 districts like South 24 Parganas, North 24 Parganas, Purba Medinipur, Paschim Medinipur, Bankura, Purulia are being benefited from ISOPOM service centres. The farmers under this programme are being encouraged to organize demonstrations on the above stated crops and provisions have been made for providing good quality seeds, partial inputs towards fertilizers, plant protection equipment, pumpset, seedbins along with proper technologies through continuous training facilities and field visits.

Area covered under various crops and farmers benefited from ISOPOM during 2011-12

Component	Area covered (Bigha of 33 cents)	Farmers benefited (Nos.)
OILSEEDS		
Mustard DC	450	450
Groundnut DC	1124	1124
Sunflower DC	2375	2375
Sesamum DC	1000	1000
Farmers' training		250
IPM DC/ FFS		100
PP Chemical		2250
PP Equipments		750
Farm implements, machinery, pump set		12
Micro- nutrient		1125
Seed Bins		2774
Total	4949	12110

“Do not let worldly thoughts and anxieties disturb your mind”

– Sri Ramkrishna Dev



“On this basis– being right and doing right– the whole world can unite”

– Swami Vivekananda

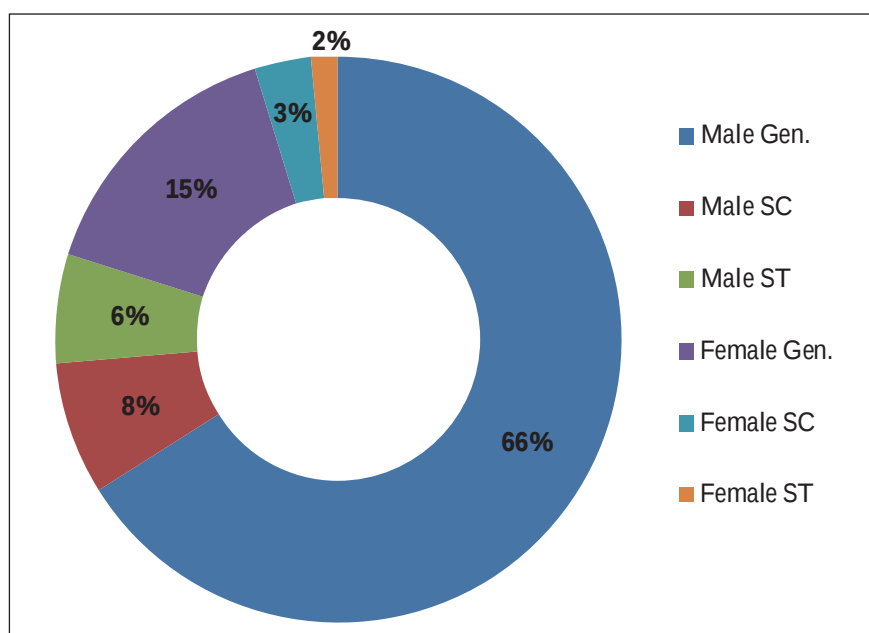
Component	Area covered (Bigha of 33 cents)	Farmers benefited (Nos.)
Maize DC	750	750
Farmers' training		150
PP Chemical		750
Farm implement, machinery, pump set		8
Micronutrient		1125
Seed Bins		1064
Total	750	3847

Total area covered (Bigha): $4949+750=5699$

Total farmers benefited: $12110+3847=15957$

Category of farmers benefited from ISOPOM:

Male				Female				Grand Total
Gen.	SC	ST	Total	Gen.	SC	ST	Total	
10540	1215	987	12742	2452	518	245	3215	15957



“Be as devoid of vanity as the cast away leaf carried by the high wind”

– Sri Ramkrishna Dev

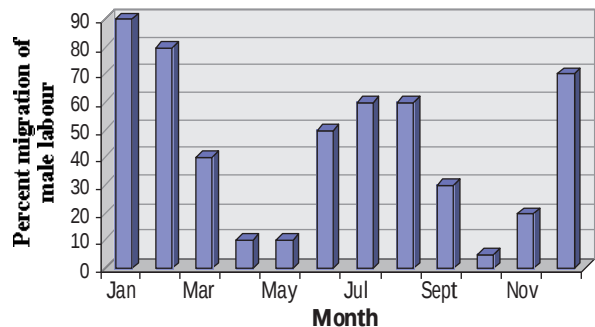
B. IRRI Project

Labour Productivity and Community Ecology Working Group (LPCEWG) - A Collaborative Project with International Rice Research Institute (IRRI), Philippines

There are three principal methods of rice establishment: dry seeding, transplanting and wet seeding. Transplanting is the most conventional methods for raising paddy in West Bengal. In coastal areas of West Bengal the farmers have to face many problems such as declining productivity and labour availability, raising cost of cultivation, climate change like late arrival of monsoon, flood, aila, hailstorm, undistributed rainfall etc. Farmers in coastal regions of West Bengal are mainly dependent on monsoon rainfall for cropping. Late arrival of monsoon, which is a common feature for the last 4-5 years, transplanting is delayed and opportunities for subsequent crops are reduced.



Pattern of male labour migration during calendar year in coastal saline zone of West Bengal, India



In the rabi and summer season the farmers pump ground water for raising summer paddy (Boro paddy) and winter vegetables for which groundwater table is going down causing serious depletion of underground water. Again due to steep climb of global fuel prices, the cost of irrigation is gradually increasing. Besides, the male farmers generally migrate to the developing urban and industrial sectors to find the work causing problem in availability of farm labour. In this perspective the direct seeding, wet or dry either manually or using drum seeder and dry seeder is the most important among the options and it can offer relief in terms of both the labour and water problems.

With such considerations we have been working to motivate the farmers for adoption of direct seeding technology in collaboration with LPCEWG of IRRI Project in order to increase the production, productivity of paddy reducing the cost of cultivation as well as to improve the livelihood of the resource poor farmers of coastal saline zone of West Bengal.

Location of the Project: West Bengal, South 24 Pgs. District

District	Latitude	Longitude
South 24 Parganas	22° 06' - 22° 20' N	88° 20' - 88° 60' E

“Do not afraid; the Master is behind you, and I am, too, as your Mother”

– Sarada Devi

Activities:

The following activities were undertaken to implement the LPCEWG project in three blocks of South 24 Parganas, namely Patharpratima, Kakdwip and Baruipur blocks.

- 1) Farmers' Training
- 2) Crop Demonstration
- 3) Training of Trainers
- 4) Water Harvesting or Land Shaping
- 5) Sharing of farmers' knowledge through field visits.
- 6) Workshop/Seminar

1. Farmers' training:

Eleven farmers' trainings were conducted in the last year under this project. About 40 farmers were present in each training. The farmers have been motivated and as a result of which the direct wet and dry seeding technologies are being accepted by them in more and more new areas and the numbers of interested farmers are increasing gradually.

2. Crop demonstration:

Efforts were made to motivate the farmers through field crop demonstrations (DC) using the principle 'seeing is believing'. Direct wet seeding Demonstrations using drum seeder were conducted by 40 farmers in rabi season during 2011-12 and direct dry seeding demonstration using dry seeder was conducted by 2 farmers in kharif season during 2011-12. The results are so encouraging that 36 dry seeding demonstrations are being conducted in 2012-13 kharif season. The crop matured 7-13 days earlier. The average yield has been increased by 80-100 kg per bigha in Rabi season. Water usage, insect pest infestation and cost of cultivation were observed less than the conventional transplanted rice. Yield difference was not so significant in the field in rabi season, but there was no insect pest infestation in the field. So overall the farmers were benefited by accepting both direct wet and dry seeding technologies.

3. Training of trainers (TOT):

Sixteen progressive farmers were trained thoroughly and transformed as trainers. It was necessary to be with the farmers and to take constant feedback from the farmers in order to solve the problems faced by them so that the farmers could adopt improved technologies properly. But it was not possible due to lack of enough resource persons of this Institution. Such difficulty was mostly solved by using trained progressive farmers.

4. Water harvesting structure (land shaping):

One land shaping was completed. The other one could not be completed due to early flood in kharif of 2011-2012. Earlier the farmer raised winter rice hardly followed by second crop in the rabi season. The farmer planned to grow sunflower and moong after winter rice in the last year. The water harvested in the pond was used to irrigate the crops in rabi and summer season. Besides, vegetables such as bean, tomato, brinjal etc. were grown by the farmers on the bund around the water harvesting structure. So, production, cropping intensity and income of farmers has been increased.

5. Sharing of farmers' knowledge through field visits:

Instead of our utmost efforts the farmers of Baruipur block were not so much successful in adopting direct seeding technology. In comparison the farmers of Kakdwip and Patharpratima were far ahead

"If you must be mad, be it not for the things of the world.
Be mad with the love of God"

– Sri Ramkrishna Dev

than farmers of Baruipur block. So arrangements were made for the farmers of Baruipur block to visit Kakdwip areas. There was a good exchange and sharing of knowledge and technology. The farmers of Baruipur block could understand their lacuna behind failure. They learnt through 'seeing is believing' and knowledge sharing and now the farmers of that area are enough knowledgeable and confident to be successful in dry seeding technology.

6. Seminar and workshop:

Two workshops at project sites, Kakdwip and Patharpratima and one at head quarter (Narendrapur) were conducted in the last year. The status, strength, weakness of direct seeding technology was discussed at open forum. We were surprised in experiencing some innovative ideas of farmers. Satya Ranjan Maity of Kakdwip narrated his experience. He failed in managing conoweeder for controlling weed problem at 15 days after sowing (DAS). He then stirred thoroughly the crop field manually by hand making up and down the soil. This caused damaging the weeds which just started to raise heads. Such practice helped the farmers to manage weed infestation effectively without using chemical herbicides. Another farmer Advaita Das of Patharpratima block told his innovation. He irrigated boro or summer rice from his pond water using pump set. After applying water from pond, the excess water was again channelled to the pond to use pond water efficiently. The water use efficiency was maximum and he was successful to curtail 40 percent water cost in summer rice cultivation.

To make the programme successful the farmers suggested the following:

1. Planning ahead in selecting short duration but high yielding varieties of rice.
2. Releasing the land earlier latest by the first week of November.
3. The land should be levelled properly.
4. Correct stage of germination is very important for equal and proper dropping of seeds from the holes of drum.
5. Weeding should be done at 15-20 DAS by cono weeder in wet direct seeding.

7. Conclusion and recommendation:

Less water was required in direct seeding rice if sown by drum seeder.

The crop matured 7-12 days earlier than the conventional cultivation by transplanting.

► Sowing of the seeds at the right time was very important, between 15 November to 15 December in direct seeding using drum seeder in Rabi season in coastal land. In late sown condition the plants were incapable to grow enough to resist cold injury which usually occurred in the last week of December. Plants from early sowing seeds attain a sizable height to fight against cold spell.

► Land leveling was one of the factors in respect of weed infestation.

Water was stagnated in some places of the fields which were not levelled. Where chemical herbicide was applied, the rice seedlings died sporadically in water stagnant areas.

► The cono-weeder was helpful to control weed in the wet rice fields. There was no need of using herbicide to control weed where cono weeder was used at right stage of weed growth i.e. after 15-20 days of sowing. At the initial state, two weeks after sowing, the seeds of the weeds started raising their heads. That was the critical time to use weeder. The germinated weed plants become destroyed keeping the rice plants alive. At the later stage the weeds failed to compete the large rice seedlings properly.

"I slept and dreamt that life was joy. I awoke and saw that life was service.

I acted and behold, service was joy"

– Rabindranath Tagore

Some farmers even, instead of using weeder, stirred the crop fields between the rows manually by hand at 15 days after sowing and were able to manage weed infestation nicely.

- ▶ Soil test was necessary for judicious use of chemical fertilizers.
- ▶ Water test was essential before irrigating the rice field.
- ▶ Supply of quality high yielding short duration rice varieties were very much required. For this reason seed multiplication programme should be tagged with the project.

C. Vermi village: Teurhat & Ramrudrapur

Due to green revolution our country achieved self sufficiency in food but due to continuous cultivation of high yielding crops in combination with indiscrement use of chemical fertilizers the soil fertility has been seriously deteriorated with reduction of yields. So, it is becoming necessary to try to find ways in which this overall soil health, its fertility and productivity can be improved. The most important component for sustaining a healthy, living soil is organic matter which consists of all organic substances in varying stages of decay including plant roots, stems, and leaves, microorganisms, and added organic materials such as compost, manure, and straw. When organic matter reaches its most mature and stable form it is called humus, a dark and fragrant, nutrient rich substance essential for long term soil fertility.



In rural areas cowdung and poultry manure can be utilized as good source of organic matter. But the cowdung in general are being mostly used as fuel. On the otherhand cowdung, straw, crop waste etc. can be utilized for the preparation of vermicompost in rural areas if the farmers are motivated and trained properly. It is one of the important organic manures suitable for all agricultural crops, forestry, and flower cultivation as well as soil reclamation. It contains a lot of humic substances. It may act as a source of essential nutrients and microelements, enzymes, soil antibiotics, vitamins, growth-promoting hormones.. Vermicompost is always in favour of improving soil fertility.

Considering these facts Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur motivated the farmers to prepare vermi-pits so that they can produce vermicompost. Initially Teurhat village under Baruipur block and Ramrudrapur village of Joynagar block were selected as these areas were dominated by cattle population, poultry birds and the farmers usually grow fruits and vegetables round the year. Awareness camps were organized in each villages and farmers were motivated to prepare pits for the purpose. With the financial support of Rastriya Krishi Vikash Yojana (RKVY) ninety vermicompost pits, fifty in Teurhat village and 40 in Ramrudrapur village, measuring 16 feet X 4 feet were prepared. These farmers are producing vermicompost. The neighbouring farm families are also being motivated and coming forward observing the success of farmers living in Teurhat and Ramrudrapur villages.

“As long as I live, so long do I learn”

– Sri Ramakrishna

10 Success Stories: Learning from Success

I. Innovative Farmer: Sk. Julfiker Hossain

Sk. Julfiker Hossain, aged 49, S/O Late Sk. Md. Iasin, village Uchahar, block Keshpur, district Paschim Medinipur, is one of the progressive farmers associated with Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur for about 6-7 years. He used to cultivate his land in conventional way. Earlier he failed to cultivate in a scientific manner and was unable to maintain parity with environment particularly change of climatic condition. So, both production and economic return were less.



He becomes associated with the village organization, Uchahar Nazrul Smriti Sangha when ISOPOM programme with the activities of transfer of improved agricultural technology through farmers' training, providing improved seeds of pulses, oilseeds etc. was started by our Institute since 2004-05. The said organization sent him to take training from our Institute under ISOPOM, and since then he maintained regular contact, almost every day, during the cropping, season, he made contact with us.

Sk. Hossain successfully received the training, improved agricultural technology and started to implement those in his field. Later on he received training on direct seeding technology using drum seeder in Summer rice, System of Rice Intensification (SRI) and soil testing. He applied all such technologies in his field along with other surrounding farmers.

Sk. Hossain is an innovative farmer. He showed his innovativeness in disseminating improved agricultural information through Iffco Kishan Sanchar Limited (IKSL) mobile voice messaging system using Airtel green card. Now thousands of farmers have been using Green card and are being benefited from IKSL voice messaging system. Their agricultural field often become inundated and the rice plants go under water for more than a week and the crops get destroyed. He took initiative and as per our advice collected Swarna Sub-1 paddy variety from Central Rice Research Institute, Cuttak. The variety survived in spite of inundation and submerged condition and the farmers were successful to get good yield. He also took initiative and collected all the seeds of the said variety produced and decided to spread the variety among more and more farmers in the coming years.

Sk. Hossain is a good extension worker. Getting benefit from improved cultivation of pulse, oilseed he is trying his best to extend the technology to the other farmers in his block. He is acting as a good motivator and motivating the farmers to adopt improved technology, direct seeding rice technology, SRI technology. Now the Agricultural Officer, Assistant Director of Agriculture of Keshpur block is taking his help and deputing him to train the other farmers of the block to disseminate the improved agricultural technology among the farmers. Besides, Sk. Hossain has started soil testing and recommending the farmers to use chemical and organic fertilizers according to soil test result.

He not only has been benefited economically from adopting the improved technology, particularly white sesamum cultivation, is also linking the sesamum farmers with market and company, Edible Agro

“Be the change that you wish to see in the world”

– Mahatma Gandhi

Pvt. Limited to get more economic return, as a result of an initiative of our Institution.

Now he is regularly taking information, knowledge and skills from our Institution and other reliable sources and trying his best to motivate the other farmers of his area for effective adoption and dissemination of the technologies for livelihood improvement.

II. Seed Producer: Chowdhury Md. Nasiruddin

Chowdhury Md. Nasiruddin, aged 40 years, S/O Chowdhury Md. Naziruddin, Vill.-Pindira, block Mangalkote, district Bardwan, is one of the successful seed producers associated directly with Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur for about 7-8 years.



He took training from our Institute in connection with improved technology for raising poultry, dairy and fish production. Later on he took training on seed production and started producing quality paddy seeds in his own land covering 12 acres. Now he has taken lease more land and continuing production of certified paddy seeds on 20 acres of land. He has been very much benefited economically from paddy seed production. He has been able to provide employment 10-12 farmers throughout the year. He is producing about 54 MT quality paddy seeds and making profit on average 2-2.5 lakh per year.

Chowdhury Md. is also one of the progressive farmers and acts as a motivator to motivate other farmers. He has good command over other farmers who always take his advice and they cultivate and protect their crops following his sound recommendation. Chowdhury Md. has good influence over other farmers in his area and the surrounding farmers always follow his suggestion and recommendation in producing quality seed.

He has contact with other farmers and regular linkage with local organizations, agricultural offices at block and district level, Seed Certification Office of Bardhaman, West Bengal State Seed Corporation, etc.

The volume of the business is quite large and it is increasing day by day. He is very innovative and progressive farmer. He first adopted direct seeding technology in Summer rice using drum seeder as well as SRI technology and motivated many farmers of his area to adopt these technologies.

Chowdhury Md. Nasiruddin has always contact with our Institution and is assisting us in organizing farmers' training on seed production and conducting trial- demonstration, and is acting as a very good extension agent of our Institute.

III. Progressive Farmer: Shri Chittya Ranjan Naskar

Shri Chittya Ranjan Naskar, aged 48 years, S/O Shir Ranjit Naskar, village Shibnagar, block Baruipur, district South 24 Parganas is one of the seed producer and associated directly with the Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur for 5-6 years.

He is also associated with the village organization named Jelerhat Gholi Mitali Sangha. The said Sangha is associated with the institute since 2005-06. He got trained from the institute in connection with improved agricultural technology under ISOPOM, quality seed production direct wet seeding of rice using drum seeder etc. He has been very much benefited economically from paddy seed production. He has been able to generate employment of two farmers during paddy crop season.

As a progressive farmer he acts as a motivator to motivate other farmers in his area to go for seed

“The Man who works for others, without any selfish motive,
really does good to himself”

– Sri Ramakrishna

production. Recently he has formed a 'Krishak Sayambar Gosthi' and State Bank of India has extended its support to his group for seed production programme. He has been able to start hybrid maize seed production from this year.

Shri Naskar has good influence over other farmers in his area and surrounding farmers always follow his suggestion and recommendation in producing quality seeds. Also he has regular linkage with local organization, panchayat, dept. of agriculture, bank etc. Though the volume of business is not large but it's promising and increasing day by day. Shri Naskar is very innovative. In his area, he is the first farmer to adopt direct seeding technology in summer rice using drum seeder and also motivated many farmers to adopt the technology. As a result of good linkage and contact with Sri Naskar, he is acting as a local extension agent of the institute in organizing farmers' training, conducting trial-demonstration.

IV. Ideal Farmer: Sri Satya Ranjan Maity

Sri Satya Ranjan Maity, BA, S/O late Surendranath Maity of Gobindarampur village, block Kakdwip, district South 24 parganas is an established farmer in his village. He is ideal farmer, having 14 bigha (about 4.62 acre) of land. As a composite farmer Sri Maity is having the component of five ponds (avg. 7 decimal each), three bottle vine yard, 4 cows, 20 hens (RIR), vermicompost unit, small poly shed for sapling growing for early vegetable. He cultivates 10 bigha (3.33 acre) of rice and rest for vegetables like – onion, ladies finger, cucurbits, ridge gourd, potato, elephant foot etc. throughout the year. This year he cultivated 1.5 bigha of boro paddy (satabdi variety). The type of inputs he received from the institute in last three four years are, 5- days farmers skill development training, vermicompost and mushroom production training, training on drum seeder and dry seeder. Now he is established farmer in the locality. According to Sri Maity he is having net profit of 6 to 7 thousand per month which can be deposited into bank, after deducting his own consumption of 5 member family and all expenses for cultivation. He has continuous linkage with the institute as well as with the local agricultural and animal husbandry department. He became the farm school headmaster in his area under ATMA scheme and his farm is farm school. His son is now studying engineering with his only source of income from agriculture. He has always positive mind to accept the new technology in agriculture. The local SHG group members are now producing vermicompost by his technical advice. He has future plan to receive any new technology related to agriculture and disseminate the idea to the local farmer. He is an ideal established farmer as well as motivator in his locality.



V. Progressive Farmer: Shri Ram Saran Sing

Shri Ram Saran Sing, aged 54 yrs., S/o Late Bahadur Sing, village Dakshin Gopalnagar, block Pathar Pratima, dist South 24 Parganas, is one of the progressive farmers associate with the Agricultural Training Centre, Ramakrishna Mission Ashrama, Narendrapur for 4-5 years.

He has been associated with the village organization, Pathar Pratima Dakshin Shibganj Lokashiksha and Rural Development Society since 2004 and intensively associated with us when ISOPOM was started by our institute since 2004-05. Gone through training from institute under ISOPOM and since then he has regular contact with the institute.

"I tell you one thing - if you want peace of mind, don not fault with others"

– Sarada Devi

Sri Sing successfully received the training on improved agricultural technology and started to implement those in his field. Also received training on direct seeding technology in summer rice using drum seeder and production of certified seeds. He applied all these technologies in his field along with the other farmers in the locality.

Sri Sing is an innovative farmer. He is pioneer in his area in adopting and disseminating direct seeding of rice technology, cultivation of moong, white sesamum and hybrid sunflower.

He is a good extension worker. He is trying his best to extend improve technologies to other farmers in his block. He is acting as a good motivator and motivating the farmers to adopt improved technology.

He has been very much benefited economically from adopting the improved technology like direct seeding of rice, hybrid sunflower, and moong cultivation and trying his best to disseminate the idea to other farmers of the locality. He has regular linkage and feedback with the institute, sharing information, knowledge and skill and motivating the farmers of the locality for effective adoption and dissemination of technologies for the improvement of their livelihood.



VI. Innovative Farmer: Sri Netai Samanta

Sri Netai Samanta, aged 71 yrs., S/O of Late Gopal Chandra Samanta, village Pasang, district Paschim Medinipur, is one of the progressive farmers associated with the institute for about 7-8 yrs. He used to cultivate his land in conventional methods. He became associated with the village organisations since 1974 and intensively linked with us through farmers training of ISOPOM programme, since 2004-05. He has gone through the farmers' training programme with improved agricultural technology and inputs like seeds of pulses, oilseed etc. And since then he has good linkage the institute.



Sri Samanta also received training on direct seeding technology using drum seeder in Summer rice, System of Rice Intensification (SRI) and production of certified seeds.

Sri Samanta, the innovative farmer of the locality, is pioneer in adopting and disseminating high yielding rice variety and white sesamum cultivation in his area and already took initiative for linking the sesamum farmers with the markets. He is a good extension worker as well as a good motivator for adopting the improved technology like direct seeding rice technology, white sesamum cultivation etc. He has been very economically benefited from his cultivation. He has regular contact with the institute for sharing of information, knowledge and skills and feed back for effective adoption and dissemination on new agro-technologies for the livelihood improvement of himself and other farmers of the locality.

VII. Multidimensional Organisation: Patharpratima Dakshin Shivganj Lokasiksha and Rural Development Society

The institute, registered society is one of the multi-facet rural based organisations engaged in various agricultural and development activities Established in 1984, the organisation's primary activities

"The Man who works for others, without any selfish motive,
really does good to himself"

– Sri Ramakrishna

were organising games & sports, tree plantations, celebrating national days etc. Later on the institute was associated with various social activities road culvert preparation, pre-primary children education etc. Now multidimensional activities of the organisation are:

1. Adopting agricultural technologies and supply of agri-inputs and machinery through ISOPOM programme.
2. Quality seed production through Seed village and seed production programme.
3. Disseminating direct seeding technology through International Rice Research Institute, Philippines.
4. Preparation of water harvesting structure through land shaping programme and land development.
5. Consultancy to the farmers through Farmers' Service Centre.
6. Bio-fertiliser, Organic & tissue culture plant material supply
7. Soil testing and recommendation to the farmers.
8. Farmers' training & training of Self Help Groups.
9. Field study of students of IRDM faculty centre, Ramakrishna Mission Vivekananda University
10. Daily recording of weather conditions
11. Organising awareness camp regarding disaster management.
12. Implementing activities Swarojgar and Swarnajayanti Yojana (mushroom, ornamental bori preparation by women SHGs), etc.



Now the organisation has developed itself as good training institute by creating infrastructure. Modern electronic gadgets, with training hall, are being used for organising training and it is seemed to be the best institute in Patharpratima block. The organisation is deeply associated with the Agricultural Training Centre and Ramakrishna Mission Ashrama since 1995. Besides, the organisation has good linkage with the Dept. of Agriculture, Dept. of Horticulture, Dept. of Animal Resource Development, Sundarban Development Board, Disaster Management Dept. of Govt. of West Bengal, Bidhan Chandra Krishi Viswa Vidyalaya, Vivekananda Institute of Bio-technology, District Rural Development Centre, Panchayat Functionary, Indian Institute of Technology, Kharagpur, IRDM Faculty Centre of Ramakrishna Mission of Vivekananda University, International Rice Research Institute, Philippines etc. The organisation is very much active in providing systematic reports time to time in connection with the successful implementations of various activities. Under the dynamic leadership of Sri Chinmoy Maity, the secretary, the organisation, is serving as the ideal training & extension service providing institute for the livelihood improvement of the locality.

VIII. Agri-Clinic & Agri-Business Centre: Sri Tuhin Roy

Sri Tuhin Roy, 36 years, of village Bhatua, P.O. Rajhat, Block Pelba, District Hooghly is an active entrepreneur of Agri-Clinic & Agri-Business Centre (AC-ABC). Getting inputs of i) refreshers training

“The brain and muscles must develop simultaneously.

Iron nerves with an intelligent brain – and the whole world is at your feet”

– Swami Vivekananda

programme of Agri-Clinic & Agri-Business Centre and ii) consultancy for bank loan & linking with bank, from the Agricultural Training Centre, Sri Roy started this venture in 2009. At present he is having the capital of

- 1) 36 employees,
- 2) a good network of 540 farmers,
- 3) Annual turnover more than Rs. 3.5 crore
- 4) Arranged more than 60 lakhs loan from banks for the progressive farmers
- 5) Present activities are production of sterilised flavoured milk, ice cream, chilling plant etc.

Sri Roy has future aim to produce good quality curd, to improve the network of farmers etc. Sri Roy has a continuous network with the institute regarding sharing of information, knowledge & skill to development as an ideal Agri-Clinic & Agri-Business Centre.

IX. Dhoapara Sabuj Bhabna Krishi Gosthi - Balagarh (SHG)

Dhoapara Sabuj Bhabna Krishi Gosthi - Balagarh, District Hooghly, is a dynamic Self Help Group actively involved in agricultural related activities. The members of the group are ten progressive farmers. At present the coverage of the group has extended upto 27 villages. The group members deposited an amount of Rs. 15000.00 in Bank. The present activities of the Group are:

- 1) Rice cultivation through SRI methods among 50 farmers.
- 2) Onion cultivation through drip irrigation covering 20 bigha for enhancing productivity and control of fungal disease.
- 3) Jute varietal trial for identification of location specific variety.
- 4) Actively involved in Green Revolution Project for 1000 hac. area of rice cultivation on behalf of block offices for disseminating technology in 27 villages.

The future aim of this active group is to disseminate new agricultural technologies to the farmers to improve the living condition of the area.

X. Mushroom Entrepreneur: Sri Arpan Chowdhury

Sri Arpan Chowdhury, of Ukila para, Sonarpur block of South 24 parganas district has developed himself as an agri-preneur of mushroom production. The type of inputs Sri Chowdhury received from the institute is intensive training on production of mushroom for three times in the year 2011. Now he has engaged 4 individuals in this venture. This mushroom production business of Sri Chowdhury is highly accepted in the locality and he is having regular average profit of Rs. 1800.00 per month. He is purchasing the spawn of mushroom from another unit of the Ashrama and the present volume of business is about 60 -70 packets/batch with an interval of 50-55 days. He has developed a good network in the local housing complex like Sonargoan, Sugam park, Sherwood estate for selling his produced mushroom and marketing is not a problem to him. Recently he has motivated 5-6 individuals to start mushroom production. He has a future plan for printing of leaflets on production and cultivation of mushroom.

XI. Woman Dairy Farmer: Smt. Nilima Roy

Smt. Nilima Roy of Arapanch, Sonarpur Block of South 24 parganas district has identified herself

“One should desire of God desirelessness. Desire is the obstacle to liberation”

– Sarada Devi

as animal grower. The type of inputs she received from the Agriculture Training Centre of Ramakrishna Mission Ashrama, Narendrapur was ten day old RIR chicks after poultry rearing training in 1998. In 2002 she has gone through animal husbandry training and received one cross-bred heifer as input. Through continuous follow up, monitoring & suggestion from the veterinary experts of the institute she is now owner of 4 cross bred cows, one heifer, 16 goats, 18 RIR. Now she knows first-aid, pregnancy diagnosis of cows & injection pushing of animal husbandry. Her monthly income is about Rs. 5500.00 per month though selling milk, meat, egg etc. She has motivated and involved two more women in this profession. She has continuous contact with the institute always follows the instructions given by the experts. She has plan to install bio-gas plant and vermi compost unit in near future. Now she has become a model woman animal grower in her locality.



XII. Dairy Farmer: Sri Gour Naskar

Sri Gour Naskar of Addirabad, block Sonarpur of South 24 parganas district is an established dairy farmer in his locality. In 2001, he was given 10 day old chicks as training inputs after successful completion of poultry rearing training, followed by one cross bred heifer in 2003. Because of his continuous effort and dream for development, he is the owner of 3 cross-bred cows, 6 goats, 10 RIR, which brings a average monthly income of Rs.4500.00. Sri Naskar now knows of animal first aid, pregnancy diagnosis of cows, I-V, I-M injection etc. In his locality, he has good linkage with other dairy farmers and rendering his technical support to the farmers. He has a regular contact with institute, either over phone or physically, whenever he needs technical support. He sells his milk locally through door to door supply and getting high price by developing good will and quality of service. He has future plan to develop a Vermicompost plant in near future and extension of diary up to 10 cattle.



XIII. Woman Dairy Farmer: Smt. Chandana Ghosh

Smt. Chandana Ghosh of Arapanch village, block Sonarpur of South 24 parganas district is an established dairy farmer in her locality. In 1998, she was given 10 day old chicks as training inputs after successful completion of poultry rearing training, followed by one cross bred heifer in 2002. Because of her continuous effort and dream for development, she is the owner of 2 cows, 2 buffaloes, 10 goats, 10 RIR, which brings a average monthly income of Rs.4500.00. Smt. Ghosh now knows of animal first aid, I-V, I-M injection etc. She has organised 10 women poultry growers and vaccinate these birds time time in her own initiative. She has a regular contact with institute, either over phone or physically, whenever he needs technical support. She has future plan to develop a Vermicompost plant in near future and extension of diary up to 10 buffaloes.



“All the wealth of the world cannot help one little Indian village
if the people are not taught to help themselves”

– Swami Vivekananda

XIV. Entrepreneur - Vermicompost: Sri Nandadulal Ghosh

Sri Nandadulal Ghosh of Satjelia village, Gosaba block, South 24 Parganas district is an established Vermicompost producer in his locality within a very short period of time. In October, 2010 he received two days vermicompost training organised by the Agricultural Training Centre of Ramakrishna Mission Ashrama, Narendrapur. At present his monthly average production is two metric tons. Two unemployed youths are fully engaged in his vermicompost production venture. His entire production is sold in the local market. He used locally available water weeds with as raw materials, which is example of his innovativeness. In his own credit he organised farmers training programme, with the support from this institute, and disseminate the technology to the local farmers. Now his volume of business is 25-30 metric tons per year. Now he is dreaming to extend his Vermicompost production to a quality branded product with the financial help of bank.

XV. Progressive Farmer: Sri Ashok Kumar Roy

Sri Ashok Kumar Roy of Dhanyakheruh village, Block Manteswar of Burdwan district is one the progressive farmers in his locality. For last 3-4 years, Sri Roy received technical guidance and skills on new technologies like Drum seeder, SRI, Seed Production, vermicomposting etc. provided by the technical experts of the institute. Last year, in September 2011, he received one month residential training on IPM on rice, from this institute, and gathered huge knowledge on plant protection. In his own field he has introduced SRI, drum seeder, rice seed production successfully. With the extension capacity of Sri Roy, other farmers of his village got motivated for successful implementation of new technology. He has become adviser of farmers willing to adopt new technology in his area. He has worked on rectified model of drum seeder for multipurpose use which is an example of his innovativeness. He has continuous linkage with the institute for sharing information knowledge & skill. Very recently he has set up an organisation through which new technologies of agriculture will be disseminated. In future he wants to develop himself as a successful seed grower.

**XVI. Progressive Farmer: Sri Panchanan Sautia**

Sri Panchanan Sautia of Gobindarampur village, block Kakdwip district, South 24 parganas is an established innovative farmer in the locality. He always feels pride to identify himself as farmer. Since 1990 he has a good linkage with the institute. Since then from time to time he has received various training on high yielding varieties replacement, fertiliser management, farming system approach, fish cultivation, poultry & dairy farming, fodder cultivation & demonstration, new technologies like Drum seeder, SRI, Seed Production, vermicomposting etc. He has practised fishery, dairy, poultry, duckery, betel leaf cultivation, elephant foot cultivation with high economic return. Whenever he went through any new ideas – he practised it in his own field. After successful demonstration he disseminated it to the farmers of the locality. In that sense he is ideal innovative progressive farmer extension worker as well as motivator. More than two decades, Sri Sautia has a good contact with the institute regarding sharing of knowledge, skill & experience. In his credit he has organised numbers of Self Help Groups and established bank linkage with them.



“Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land”

– 1st Earl of Chatham, William Pitt

11

Post Graduate Diploma in Agriculture and Extension Management (PGDAEM)

Continuous up gradation of human resources through short-term courses is going in different sectors. But while a critical shift is needed in knowledge and attitude, comprehensive course is more effective. After shading off the shame of food crisis after independence, during last two decades the farming community faced the crisis of market. One of the main reasons is the major thrust on production and indifferent attitude about linking the production to the market. Other major causes are drastic change in World economic system, lack of proper exploration of ICT, inappropriate planning system etc. This symptom has been observed throughout the country. The need to re-orient the agricultural extension system about all those major concerns has been considered by the policy makers as one of the most important inputs towards higher agricultural growth.

The Govt. of India through National Institute of Agricultural Extension Management (MANAGE), Hyderabad has taken a country wide drive to orient the agricultural extension functionaries (technical graduate - officers of Agriculture and allied Department) to properly orient them to such situation - based extension management aspects of agricultural development through a one-year course on 'Post Graduate Diploma in 'Agricultural Extension Management' (PGDAEM).

The objectives of the course are:



- To enhance the techno-managerial competence of extension functionaries.
- To acquaint the extension functionaries with the latest developments in the field of agriculture and allied sectors.
- To equip the extension functionaries on latest tools and techniques for participatory decision making.
- To develop an insight into various extension models to enrich the agri-value chain.

“Be the change that you wish to see in the world”

– Mahatma Gandhi

The SAMETI, Narendrapur is conducting this one year model course for the technical officers of the state since 2007-08 sessions along with the other states of the country. A thorough orientation, conceptualization and to some extent practice in the sectors of Agricultural extension system, Communication, Economic globalization - agricultural trades, Principles of Management, Participatory planning, Market-led extension, Agricultural business and entrepreneurship development, Project management, Use of ICT, Sustainable development approach in agriculture and allied sectors etc are the main objective of the course. For every module the participants produces an assignment after going through field/ practical work and towards the end of the course a total project is submitted. Enthusiastic and steadily increasing response has been received from the Govt. employees of the sectors of Agriculture, Horticulture, Fisheries, Animal husbandry, Agricultural marketing, Banking sectors etc.

Sl. No.	Batch / Year	No. admitted	No. completed study
1	2007-08	27	26
2	2008-09	41	25
3	2009-10	72	53
4	2010-11	36	30
5	2011-12	21	Running

“The brain and muscles must develop simultaneously. Iron nerves with
an intelligent brain – and the whole world is at your feet”

– Swami Vivekananda

The publications of any institute are the spokesmen of that institute which self-describes the activities of that institute. Similarly we also have some publications. Website of any institute is the only document of the institute which can be browsed by any one through the world. Our Institute has a regularly updated website: www.sametiwb.org of about 20 pages, displaying the programmes and activities of the institute along with other related information. Updated information, programme images, activity schedules are uploaded in the website on regular basis. Yearly tentative training programmes workshop-seminar, programme performed in the last year, important coming programmes etc. are displayed in the website. Important announcement and information like schedule of PGDAEM semester examinations etc. are displayed in the website notice board in home page. Since 2006-07 annual progress report of the institute is available in the website in pdf form.



The institute publishes its regular 'News Letter' on quarterly basis. It is of four pages colour publication. The newsletter contains the news covering the major programmes performed by the institute, news pegs, coming programmes, about SAMETI West Bengal etc. The soft copy of the news letter is also displayed in the institute website in pdf form. The design of the newsletter has been changed four times. Since January, 2010 to March, 2012 the newsletter has published nine times (Vol. I. No. 1-4, Vol. II. No. 1-4 & Vol III. No. 1)

Other publications like books, folders, leaflets, CDs those are produced in the year 2011-2012, are given in the tabular form below:

Sl. No.	Type of publication	Name of the publication	About the publication
1.	Folder	'Swet Sorshe chase unnata prajukti'	White mustard cultivation
2.	Folder	'Tori Sorshe Chas'	Tori Mastard sultivation
3.	Folder	'Sada Tiler Unnata Chas Paddhati'	White sesame cultivation

"Anyone who has never made a mistake has never tried anything new"

- Albert Einstein

Sl. No.	Type of publication	Name of the publication	About the publication
4.	Folder	'Shankar Jater Suryamukhi chase unnata Prajukti'	Hybrid sunflower cultivation
5.	Folder	'Mug Chase unnata Prajukt'	Mug (pulse) cultivation
6.	Folder	'Drum seeder'	Sowing of paddy seeds in wet land by Drum Seeder
7.	Book	'Adhunik Gopalan O Paricharja'	Modern dairy management
8.	Book	'Phal-O- Phul Gacher Kalamer Chara Tairi'	Cutting preparation of flower & fruit plants
9.	CD	'Knechosar Utpadan'	Vermicompost Production
10.	CD	'Unnata Beej Utpadan'	Hybrid Seed Production
11.	Booklet	(Jointly with RKMVU)	'Jaiba Krishir Mul Mantra'
12.	Book (in Nepali version)	'Finger Millet (kodo) cultivation in Darjeeling district'	Finger Millet (kodo) cultivation



“Finish the few duties you have at hand, and then you will have peace”

– Sri Ramakrishna

13 Faculty Members of the Institute

The faculty members, the human resources, are the most important assets of the institute. Along with national and international exposures and education, all the members have continuous deep rooted relation and intervention with the rural life and its development.

Faculty members of the Institute:

Sl. No.	Name	Designation	Educational Qualification	Field of Specialisation
1	Dr. Manas Ghosh	Principal, ATC & Director, SAME TI	Ph. D. in Agricultural Entomology, PGDAEM	Plant Protection, IPM, Rural Development
2	Dr. Gour Gopal Banik	Senior Lecturer (Retd. on 29th Feb, 2012)	Ph. D. in Soil Science	Soil Science, Vermi composting
3	Sri Prasanta Dasgupta	Senior Lecturer	M. Sc. in Botany-Horticulture	Horticulture, Pomology, Organic Farming
4	Sri Pankajaksha Maity	Senior Lecturer (Retd. on 31st Mar, 2012)	M. Sc. in Agriculture	Horticulture, Olericulture, Floriculture
5	Dr. Asutosh Das	Senior Lecturer	M. Sc (Ag.), Ph.D., PGDAEM	Medicinal Plant Management, ISOPOM
6	Dr. Satinath Das	Senior Lecturer	B.V. Sc, PGDAEM	Dairy Management
7	Sri Amiyakumar Raj	Senior Lecturer	M. Sc (Ag.) in Agricultural Extension	Leadership, Motivation,

Men are more valuable than all the wealth' of the world

– A anonymous

Sl. No.	Name	Designation	Educational Qualification	Field of Specialisation
8	Sri Dilip Maity	Senior Lecturer	M. Sc. in Agronomy	Farm Management, Seed Technology
9	Dr. SK. Musiar Ali	Senior Lecturer	Ph. D., in Agricultural Extension	Extension Management, ICT in Agriculture, Extension Reforms
10	Dr. Kamalakanta Hazra	Senior Lecturer	Ph. D. in Plant Pathology	Plant Protection, IPM, Mushroom Cultivation
11	Dr. Sourendranath Das	Senior Lecturer	Ph. D. in Agricultural Entomology, PGDAEM	Botanical Pesticides Development, IPM
12	Sri Soumyesh Mandal	Chief Instructor	M. Tech. Agricultural Engineering, PGDAEM	Soil & Water Engineering
13	Sri Subhasril Basu	Faculty	M. A. in Sociology L.L.B.	Panchayat & Rural Development, Social Welfare Administration Mainstreaming Gender
14	Sri Asit Basu	Faculty	M. Sc. In Anthropology	Entrepreneurship Dev. Agricultural Marketing
15	Sri Ranjan Kanti Chatterjee	Faculty	Diploma in Engineering (Mech.)	Rural Engineering
16	Dr. Mohit Hossain	Faculty	MBBS	Health & Hygiene
17	Dr. Sarbaswarup Ghosh	Faculty (left on Oct, 2011)	M.V. Sc., PGDAEM	Veterinary Biochemistry, Poultry Management
18	Sri Debabrata Giri	Faculty	M.Sc. in Economics with Rural Dev., PGDAEM, B.Ed.	Rural Development, Project Management

“The brain and muscles must develop simultaneously. Iron nerves with an intelligent brain – and the whole world is at your feet”

– Swami Vivekananda

OUTSIDE FACULTY

	Name	Status	Qualification
1	Dr. Dibyendu Sen	Former Director of Extension & Education, BCKV, the State Agricultural University	Ph.D in Agril. Extension
2	Dr. Debabrata Dasgupta	Former Vice Chancellor, BCKV, the State Agricultural University	Ph.D in Agril. Extension
3	Dr. Debabrata Basu	Professor, Agricultural Extension, BCKV	Ph.D in Agril. Extension
4	Dr. Shankar Acharya	Professor, Agricultural Extension, BCKV	Ph.D in Agril. Extension
5	Dr. Rupak Goswami	Lecturer, Integrated Rural Development & Management Faculty Centre	Ph.D. in Agricultural extension
6	Dr. Nasim Ali	Lecturer, Integrated Rural Development & Management Faculty Centre	Ph.D. in Genetics and Plant Breeding
7	Dr. A. K. Pani	Professor, Army Management Institute, Kolkata	Ph.D in Agricultural Marketing
8	Dr. A. K. Roy	Former Principal of Staff Training College, NABARD	Ph.D
9	Dr. R.B. Mallick	Head of the Dept. Agronomy, Ballygunj Science College, Calcutta University	Ph.D
10	Dr. Asis Kr. Samanta	Dept of ARD, Govt. of West Bengal	Ph.D
11	Dr. B.K.Mahapatra	Central Institute of Fisheries Institution	Ph.D
12	Dr. Swadesh Mishra,	Ex. Agricultural Meteorologist, Govt. of West Bengal	Ph. D.
13	Mr. Arindam Saha	Vice Principal, MCX and Stock Exchange, Kolkata	
14	Mr. Sudpita Mukhopadhyay	Divisional Manager, Marketing, Spencer India Ltd.	PGDABM, MANAGE, Hyderabad
15	Dr. Vivek Roychowdhury	Professor of Indian Institute of Foreign Trade	Ph.D
16	Mr. Kalyan Maity	Pvt. Entrepreneur, Agro India Agri-Clinic	Agri-preneur

“I can’t contain myself when one draws near me and calls me Mother”

– Sarada Devi